

MEMORANDUM TO: Ogden College of Science and Engineering Curriculum Committee

Dr. Jack Rudolph	Dr. James Gary	Dr. Greg Arbuckle
Dr. Martin Stone	Dr. Rong Yang	Dr. John Khouryieh
Dr. Bruce Schulte	Dr. Julie Ellis	Dr. Bruce Kessler
Dr. Phil Lienesch	Dr. Warren Campbell	Dr. Richard Schugart
Dr. Cathleen Webb	Dr. David Keeling	Dr. Keith Andrew
Dr. Hemali Rathnayake	Dr. Xingang Fan	Dr. Elizabeth Lemerise
Dr. Les Pesterfield		

FROM: Kenneth Crawford, Chair

SUBJECT: Agenda for Thursday, February 6, 2014 4:00 p.m. in COHH 4123

A. OLD BUSINESS:

I. Consideration of the minutes of the December 5, 2013 and January 16, 2014 meetings.

B. NEW BUSINESS:

Information Items

Department of Geography & Geology

I. Proposal to Create a Temporary Course
a. GEOL 315, Energy, Climate and Carbon, 4 hrs.

Department of Psychological Sciences

I. Proposal to Create a Temporary Course
a. PSYS 321, PSYS 345, PSYS 361, PSYS 370, PSYS 405, PSYS 407, PSYS 411, PSYS 423, PSYS 424, PSYS 430, PSYS 450, PSYS 473, PSYS 480, PSYS 483, PSYS 485

II. Proposal to Revise Course Prefix
a. PSY 321, PSY 345, PSY 361, PSY 370, PSY 405, PSY 407, PSY 411, PSY 423, PSY 424, PSY 430, PSY 450, PSY 473, PSY 480, PSY 483, PSY 485

Consent Items

Department of Biology

I. Proposal to Suspend a Course
a. BIOL 175, University Experience - Biology, 2 hrs.
b. BIOL 483, Multivariate Methods in Biology, 4 hrs.

II. Proposal to Revise Course Prerequisites
a. BIOL 222, Plant Biology and Diversity, 3 hrs.

- b. BIOL 224, Animal Biology and Diversity, 3 hrs.
- c. BIOL 225, Animal Biology and Diversity Lab, 1 hr.
- d. BIOL 226, Microbial Biology and Diversity, 3 hrs.
- e. BIOL 232, Principles of Wildlife Ecology and Management, 3 hrs.
- f. BIOL 312, Bioinformatics, 4 hrs.
- g. BIOL 317, Plant Pathology, 3 hrs.
- h. BIOL 319, Introduction to Molecular and Cell Biology
- i. BIOL 322, Introduction to Molecular and Cell Biology Laboratory, 1 hr.
- j. BIOL 325, Insect Biodiversity, 3 hrs.
- k. BIOL 326, Ornithology, 3 hrs.
- l. BIOL 328, Immunology, 4 hrs.
- m. BIOL 334, Animal Behavior, 3 hrs.
- n. BIOL 335, Neurobiology, 3 hrs.
- o. BIOL 350, Introduction to Recombinant Genetics, 3 hrs.
- p. BIOL 377, Animal Form and Function, 3 hrs.
- q. BIOL 399, Research Problems in Biology, 1-3 hrs.
- r. BIOL 403, Molecular Basis of Cancer, 3 hrs.
- s. BIOL 404, Techniques and Theory of Electron Microscopy
- t. BIOL 407, Virology, 3 hrs.
- u. BIOL 411, Cell Biology, 3 hrs.
- v. BIOL 420, Introduction to Toxicology, 3 hrs.
- w. BIOL 440, Developmental Genetics, 3 hrs.
- x. BIOL 464, Endocrinology, 3 hrs.
- y. BIOL 490, Plants as Alternative Therapeutics, 3 hrs.
- z. BIOL 495, Molecular Genetics, 3 hrs.
- aa. BIOL 496, Plant Biotechnology, 4 hrs.

Department of Computer Science

- I. Proposal to Revise Course Prerequisites/Corequisites
 - a. CS 170, Problem Solving and Programming, 3 hrs.

Department of Geography and Geology

- I. Proposal to Revise Course Title
 - a. GEOG 200, Introduction to Latin America, 3 hrs.
- II. Proposal to Delete a Course
 - a. GEOG 318, Geographic Information Systems for Engineers
- III. Proposal to Revise Course Prerequisites
 - a. GEOL 430, Optical Mineralogy, 3 hrs.
- IV. Proposal to Revise Course Prerequisites/Corequisites
 - a. METR 422, Physical Climatology, 4 hrs.
 - b. METR 431, Dynamic Meteorology I, 3 hrs.

- c. METR 432, Synoptic Meteorology, 3 hrs.
- d. METR 433, Dynamic Meteorology II, 3 hrs.
- e. METR 437, Mesoscale Meteorology, 3 hrs.
- f. METR 438, Physical Meteorology, 3 hrs.
- g. METR 439, Atmospheric Modeling, 3 hrs.

V. Proposal to Delete a Program

- a. Ref. 677, Geology (Professional Major), 40 hrs.

Department of Psychological Sciences

I. Proposal to Create an Equivalent Course

- a. PSY 100, Introduction to Psychology, 3 hrs.
- b. PSY 210, Research Methods in Psychology, 3 hrs.
- c. PSY 211, Research Methods in Psychology Laboratory, 1 hr.
- d. PSY 220, Introduction to Developmental Psychology, 3 hrs.
- e. PSY 290, Supervised Study in Psychology, 1-3 hrs.
- f. PSY 313, Statistics in Psychology, 3 hrs.
- g. PSY 331, Psychology of Learning, 3 hrs.
- h. PSY 350, Social Psychology, 3 hrs.
- i. PSY 440, Abnormal Psychology, 3 hrs.
- j. PSY 481, History of Psychology, 3 hrs.
- k. PSY 490, Research, Readings, or Special Projects in Psychology, 1-3 hrs.
- l. PSY 499, Senior Seminar in Psychology, 3 hrs.

II. Proposal to Revise Course Number

- a. PSYS 345, Psychology of Sexuality, 3 hrs.
- b. PSYS 405, Cognitive Psychology, 3 hrs.
- c. PSYS 407, Psychology of Language, 3 hrs.
- d. PSYS 430, Psychology of Women, 3 hrs.
- e. PSYS 480, Behavioral Neuroscience, 3 hrs.
- f. PSYS 483, Evolutionary Psychology, 3 hrs.
- g. PSYS 485, Psychology of Religion, 3 hrs.

Action Items

Office of the Dean

I. Proposal to Create a New Certificate Program

- a. Food Science Program, 12 hrs.

Department of Biology

I. Proposal to Make Multiple Revisions to a Course

- a. BIOL 283, Introductory Biostatistics, 4 hrs.

- b. BIOL 315, Ecology, 4.5 hrs.
- c. BIOL 327, Genetics, 4 hrs.
- d. BIOL 430, Evolution, 3 hrs.
- II. Proposal to Create a New Course
 - a. BIOL 329, Genetics Laboratory, 1hr.
 - b. BIOL 336, Food Microbiology, 3 hrs.
- III. Proposal to Revise a Program
 - a. Ref. 525, Major in Biology, 48 hrs.
 - b. Ref. 617, Major in Biology, 36 hrs.

Department of Geography and Geology

- I. Proposal to Make Multiple Revisions to a Course
 - a. GEOG 210, Human Ecology, 3 hrs.
 - b. GEOG 280, Introduction to Environmental Science, 3 hrs.
 - b. GEOG 300, Geographic Research Methods, 3 hrs.
 - c. GEOG 452, Field Studies in Geography, 3 hrs.
 - d. GEOG 495, Supervised Practicum, 3 hrs.
 - e. GEOL 432, Crystallography, 4 hrs.
- II. Proposal to Revise Course Credit Hours
 - a. GEOG 391, Spatial Data Analysis and Interpretation, 3 hrs.
- III. Proposal to Revise a Program
 - a. Ref. 674, Major in Geography, 36 hrs.
 - b. Ref. 374, Minor Geography, 21 hrs.
 - c. Ref. 577, Major in Geology: Extended Major, 52 hrs.
 - d. Ref. 578, Major in Meteorology, 49.5 hrs.

Department of Mathematics

- I. Proposal to Create a New Course
 - a. MATH 240, Geometry in Art and Architecture, 3 hrs.

Department of Psychological Sciences

- I. Proposal to Make Multiple Revisions to a Course
 - a. PSYS 361, Psychological Tests and Measurements, 3 hrs.
 - b. PSYS 411, Psychology of Sensation and Perception, 3 hrs.
- II. Proposal to Create a New Course
 - a. PSYS 433, Judgment and Decision Making, 3 hrs.
 - b. PSYS 462, Neuroscience of Learning and Memory, 3 hrs.
 - c. PSYS 465, Psychopharmacology, 3 hrs.
- III. Proposal to Revise a Program

a. Ref. 591, Major In Psychology, 52 hrs.

C. OTHER BUSINESS

MEMBERS PRESENT:

Dr. Cathleen Webb
Dr. Phil Linesch
Dr. Hemali Rathnayake
Dr. James Gary
Dr. Rong Yang
Dr. Julie Ellis
Dr. Greg Arbuckle

Dr. Warren Campbell
Dr. John Khouryieh
Dr. Mark Robinson for Dr. Bruce Kessler
Dr. Richard Schugart
Dr. Xingang Fan
Dr. Neal Downing, Guest

FROM: Ken Crawford, Chair

OLD BUSINESS:

Campbell/Robinson moved approval of the minutes from the November 7, 2013 meeting.
Motion passed.

NEW BUSINESS:

Consent Agenda

Webb/Arbuckle moved AMS 470 to the action agenda. Webb/Campbell moved MATH 307 to the action agenda. All remaining consent items were passed as presented on an Arbuckle/Campbell motion.

Action Agenda

Department of Architectural and Manufacturing Sciences

Webb/Arbuckle moved approval of the proposal to revise course prerequisites, AMS 470, Land Development. Motion passed with a friendly amendment to strike “Civil” from the proposal.

Department of Mathematics

Arbuckle/Campbell moved approval of the proposal to revise a program, Ref. #728 and 528, Major in Mathematics. Motion passed.

Webb/Campbell moved approval of the proposal to revise course prerequisites, MATH 307, Introduction to Linear Algebra. A short discussion cleared up concerns that had moved the item to the action agenda. Motion passed.

OTHER BUSINESS:

Announcement regarding special January meeting to discuss Engineering program proposal.
Meeting was adjourned at 4:32 p.m.

MEMBERS PRESENT (submitted vote via email):

Dr. Cathleen Webb	Dr. Warren Campbell
Dr. Phil Linesch	Dr. John Khouryieh
Dr. Hemali Rathnayake	Dr. David Keeling
Dr. James Gary	Dr. Richard Schugart
Dr. Rong Yang	Dr. Xingang Fan
Dr. Julie Ellis	Dr. Keith Andrew
Dr. Greg Arbuckle	Dr. Les Pesterfield
Dr. Martin Stone	

FROM: Ken Crawford, Chair

OLD BUSINESS:

No old business.

NEW BUSINESS:

Action Agenda

Department of Engineering

Pesterfield/Campbell moved approval of the proposal for a new academic program, Civil Engineering, Electrical Engineering, and Mechanical Engineering. Motion passed.

OTHER BUSINESS:

No other business. Meeting was adjourned at 12:14 p.m.

Proposal Date: 1/21/14

**Ogden College of Science and Engineering
Department of Geography and Geology
Proposal to Create a Temporary Course
(Information Item for First Offering. Action Item for Second Offering)**

Contact Person: Fred Siewers, fred.siewers@wku.edu; 745-5988

1. Identification of proposed course:

- 1.1 Course prefix (subject area) and number: Geol. 315
- 1.2 Course title: Energy, Climate and Carbon
- 1.3 Abbreviated course title: Energy, Climate and Carbon
- 1.4 Credit hours: 4
- 1.5 Schedule type: Lecture/Lab
- 1.6 Prerequisites/corequisites: Geol. 111 or Geol. 112 or Geol. 103 or Geog. 103
- 1.7 Grade type: □ standard letter grade
- 1.8 Course description: Energy, Climate and Carbon examines our current reliance upon carbon-based sources of energy, the affect of fossil-fuel emissions on climate, and current efforts to limit fossil-fuel emissions and global climate change. The course is particularly focused on carbon-capture technologies and geological carbon sequestration. Laboratory work will focus on real-world issues pertaining to site selection, permitting, and monitoring of carbon stored in subsurface settings. One overnight field trip is required. Course fee = \$30

2. Rationale

- 2.1 Reason for offering this course on a temporary basis: This is a brand new, untested course offering from the Geology program. All of the lectures and laboratories will be brand new as will the field trip, which will be to an active CO₂ sequestration site in Illinois. The course needs to be offered on a temporary basis to gauge student interest and potential demand.
- 2.2 Relationship of the proposed course to courses offered in other academic units: Geol. 315 will provide a broad overview of our current sources of energy and issues pertaining to climate change. Similar content is provided in Phys 100 - Energy, EE 130 - Our Electrical World, and Geol. 415 - Environmental Geology. Geol. 315 differs significantly from those courses due to its focus on carbon; specifically its exploration of sources of CO₂ in the environment, the capture of CO₂ from atmospheric and industrial sources, and the process of geological CO₂ sequestration.

3. Description of proposed course

- 3.1 Course content outline
 - Energy, Climate and Carbon: The Context
 - CO₂ and climate change science
 - Energy, Transportation and CO₂ production
 - Technology options for decreasing CO₂ emissions

- Alternative energy and the CO₂ problem
- Capturing CO₂
- Transportation of Captured CO₂
- Geological sequestration
- The Effectiveness of Carbon Capture and Storage (CCS)
- The Cost of Clean Energy
- The Politics of Clean energy

Lab-based activities: the development of a real-world geological CO₂ sequestration project

Overnight Fieldtrip: Illinois Basin Decatur Project

3.2 Tentative text(s): Cook, Peter J., 2012, *Clean Energy, Climate and Carbon*. CRC Press, Leiden, The Netherlands, 320 p.

4. Second offering of a temporary course (if applicable)

4.1 Reason for offering this course a second time on a temporary basis:

4.2 Term course was first offered:

4.3 Enrollment in first offering:

5. Term of Implementation: Fall 2014

6. Dates of review/approvals:

Department of Geography and Geology

January 21, 2014

Dean, College of Science & Engineering

Office of the Provost

**Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Create a Temporary Course**

(Information Item for First Offering. Action Item for Second Offering)

Contact Person: Dr. Elizabeth Lemerise, Elizabeth.lemerise@wku.edu, 745-4390

1. Identification of proposed course:

- 1.1 Course prefix (subject area) and number:
PSYS 321, 345, 361, 370, 405, 407, 411, 423, 424, 430, 450, 473, 480, 483, 485
- 1.2 Course titles: Same as existing PSY courses
- 1.3 Abbreviated course titles: Same as existing PSY courses
- 1.4 Credit hours: Same as existing PSY courses
- 1.5 Schedule type: Same as existing PSY courses
- 1.6 Prerequisites/corequisites: Same as existing PSY courses
- 1.7 Grade type: ___ standard letter grade ___ pass/fail ___ in progress (IP)
Same as existing PSY courses
- 1.8 Course description: Same as existing PSY courses

2. Rationale

- 2.1 Reason for offering these courses on a temporary basis:
The Department of Psychological Sciences was approved by the Board of Regents as a new academic department in Ogden College of Science and Engineering to be effective November 1, 2013. Fifteen (15) undergraduate courses are being moved from the Department of Psychology to the new Department of Psychological Sciences. To facilitate student course selection and registration for the 2014 summer term and inclusion in the TopNet Schedule of Classes for the 2014 fall semester (which will launch March 4), the courses need to be approved as temporary courses with the PSYS prefix so they can appear in TopNet prior to completion of the entire curriculum approval process. If no sections of the courses appear in TopNet, students and advisors will be confused about the absence of these specific courses.
- 2.2 Relationship of the proposed course to courses offered in other academic units: N/A

3. Description of proposed course

- 3.1 Course content outline
All of the temporary courses will replicate the existing PSY courses
- 3.2 Tentative text(s)

4. Second offering of a temporary course (if applicable)

- 4.1 Reason for offering this course a second time on a temporary basis:
- 4.2 Term course was first offered:
- 4.3 Enrollment in first offering:

5. **Term of Implementation:** 2014 summer term

6. **Dates of review/approvals:**

Department of Psychological Sciences

Dean, Ogden College of Science and
Engineering

Office of the Provost

2/6/14

Proposal date: December 16, 2013

**Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Revise Course Prefix (Subject Area)
(Information Item)**

Contact Person: Sharon Mutter, sharon.mutter@wku.edu, 5-4389

- 1. Identification of current course prefix: PSY**
- 2. Identification of proposed course prefix: PSYS**
- 3. Rationale for the prefix revision:** The courses listed in #4 are taught primarily by faculty in the Department of Psychological Sciences. Administrative responsibility for these courses has therefore moved from the Department of Psychology to the Department of Psychological Sciences, which uses a different course prefix. (see attached Checklist for Processing Academic Changes: Mergers and Separations).
- 4. Course numbers to be included under the new course prefix:** 321, 345, 361, 370, 405, 407, 411, 423, 424, 430, 450, 473, 480, 483, 485
- 5. Term of implementation: Fall 2014**
- 6. Dates of notification to committees:**

Department of Psychological Sciences
OCSE Curriculum Committee
Undergraduate Curriculum Committee
University Senate

January 6, 2014

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Suspend a Course
(Consent Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: BIOL 175
- 1.2 Course title: University Experience - Biology

2. Rationale for the course suspension: This course has not been taught by the Biology Department since the fall 2008 semester. This course is not applicable toward a major or minor in biology, and is not required for any biology-related program. We do not anticipate developing a program that will include or require this course.

3. Effect of course suspension on programs or other departments, if known: None

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department of Biology

January 24, 2014

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Suspend a Course
(Consent Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: BIOL 483
- 1.2 Course title: Multivariate Methods in Biology

2. Rationale for the course suspension: For several years this course has been populated mainly by Biology graduate students and taught almost exclusively as BIOL 483G. The difficulty of the course and the evaluatory system used predicates replacing with a 500-level course, making the present course duplicative and needing of removal from the Biology curriculum.

3. Effect of course suspension on programs or other departments, if known: None

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department of Biology	<u>January 24, 2014</u>
Ogden College Curriculum Committee	_____
Undergraduate Curriculum Committee	_____
University Senate	_____

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: BIOL 222
 - 1.2 Course title: Plant Biology and Diversity

- 2. Current prerequisites/corequisites:**

Prerequisites: BIOL 120/121 and BIOL 122/123
Corequisite: BIOL 223

- 3. Proposed prerequisites/corequisite:**

Prerequisites: BIOL 120/121 and BIOL 122/123 with grades of "C" or higher
Corequisite: BIOL 223

- 4. Rationale for the revision of prerequisites:** Grades of "C" or higher are proposed as performance requirements for the current prerequisite series as a means of improving the chances of success for students pursuing a Major in Biology. These are the primary core courses that all Biology Majors students must take prior to enrolling in subsequent courses.

- 5. Effect on completion of major/minor sequence:** None

- 6. Proposed term for implementation:** Fall 2014

- 7. Dates of prior committee approvals:**

Department of Biology
Ogden College Curriculum Committee
Undergraduate Curriculum Committee
University Senate

_____ **November 22, 2013**

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: BIOL 224
 - 1.2 Course title: Animal Biology and Diversity
- 2. Current prerequisites/corequisites:**

Prerequisites: BIOL 120/121 and BIOL 122/123
Corequisite: BIOL 225
- 3. Proposed prerequisites/corequisite:**

Prerequisites: BIOL 120/121 and BIOL 122/123 with grades of "C" or higher
Corequisite: BIOL 225
- 4. Rationale for the revision of prerequisites:** Grades of "C" or higher are proposed as performance requirements for the current prerequisite series as a means of improving the chances of success for students pursuing a Major in Biology. These are the primary core courses that all Biology Majors students must take prior to enrolling in subsequent courses.
- 5. Effect on completion of major/minor sequence:** None
- 6. Proposed term for implementation:** Fall 2014
- 7. Dates of prior committee approvals:**

Department of Biology
Ogden College Curriculum Committee
Undergraduate Curriculum Committee
University Senate

November 22, 2013

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

1. Identification of course:

- 1.1 Course prefix (subject area) and number: BIOL 225
- 1.2 Course title: Animal Biology and Diversity Lab

2. Current prerequisites/corequisites:

Prerequisites: BIOL 224
Corequisite: none

3. Proposed prerequisites/corequisite:

Prerequisites: none
Corequisite: BIOL 224

4. Rationale for the revision of prerequisites: BIOL 225 is intended to be taken concurrently with BIOL 224 (Animal Biology and Diversity), not after as suggested by the catalog listing BIOL 224 as a prerequisite. Changing BIOL 224 to a corequisite would better reflect that these two courses need to be taken during the same semester.

5. Effect on completion of major/minor sequence: None

6. Proposed term for implementation: Fall 2014

7. Dates of prior committee approvals:

Department of Biology

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

November 22, 2013

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: BIOL 226
 - 1.2 Course title: Microbial Biology and Diversity

- 2. Current prerequisites/corequisites:**

Prerequisites: BIOL 120/121 and BIOL 122/123
Corequisite: BIOL 227

- 3. Proposed prerequisites/corequisite:**

Prerequisites: BIOL 120/121 and BIOL 122/123 with grades of "C" or higher
Corequisite: BIOL 227

- 4. Rationale for the revision of prerequisites:** Grades of "C" or higher are proposed as performance requirements for the current prerequisite series as a means of improving the chances of success for students pursuing a Major in Biology. These are the primary core courses that all Biology Majors students must take prior to enrolling in subsequent courses.

- 5. Effect on completion of major/minor sequence:** None

- 6. Proposed term for implementation:** Fall 2014

- 7. Dates of prior committee approvals:**

Department of Biology
Ogden College Curriculum Committee
Undergraduate Curriculum Committee
University Senate

November 22, 2013

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: BIOL 232
 - 1.2 Course title: Principles of Wildlife Ecology and Management
- 2. Current prerequisites:** BIOL 120/121, BIOL 122/123 or permission of instructor
- 3. Proposed prerequisites:** BIOL 120/121 and BIOL 122/123 with grades of "C" or higher or consent of instructor
- 4. Rationale for the revision of prerequisites:** Grades of "C" or higher are proposed as performance requirements for the current prerequisite series as a means of improving the chances of success for students pursuing a Major in Biology. These are the primary core courses that all Biology Majors students must take prior to enrolling in subsequent courses.
- 5. Effect on completion of major/minor sequence:** None
- 6. Proposed term for implementation:** Fall 2014
- 7. Dates of prior committee approvals:**

Department of Biology

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

November 22, 2013

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)**

Contact Person: Claire Rinehart, claire.rinehart@wku.edu, 270-745-5997

1. Identification of course:

- 1.1 Course prefix (subject area) and number: BIOL 312
- 1.2 Course title: Bioinformatics

2. Current prerequisites: BIOL 120-121 or 113, and BIOL 283 or MATH 183 or MATH 382 or STAT 301

3. Proposed prerequisites/corequisite: BIOL 120/121 with grades of “C” or higher or consent of instructor

4. Rationale for the revision of prerequisites: Because of the broad background of students interested in this course, I no longer require a statistics prerequisite but instead introduce the statistical methods as we use them throughout the course. Students need the solid molecular, cellular, and genetic biology background taught in BIOL 120/121. BIOL 113 does not provide sufficient knowledge.

Grades of “C” or higher are proposed as performance requirements for the revised prerequisite series as a means of improving the chances of success for students pursuing a Major in Biology. These are primary core courses that all Biology Majors students must take prior to enrolling in subsequent courses.

5. Effect on completion of major/minor sequence: None

6. Proposed term for implementation: Fall 2014

7. Dates of prior committee approvals:

Department of Biology

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

January 24, 2014

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: BIOL 317
 - 1.2 Course title: Plant Pathology
- 2. Current prerequisites:** BIOL 120/121 and BIOL 122/123
- 3. Proposed prerequisites:** BIOL 120/121 and BIOL 122/123 with grades of "C" or higher.
- 4. Rationale for the revision of prerequisites:** Grades of "C" or higher are proposed as performance requirements for the current prerequisite series as a means of improving the chances of success for students pursuing a Major in Biology. These are the primary core courses that all Biology Majors students must take prior to enrolling in subsequent courses.
- 5. Effect on completion of major/minor sequence:** None
- 6. Proposed term for implementation:** Fall 2014
- 7. Dates of prior committee approvals:**

Department of Biology
Ogden College Curriculum Committee
Undergraduate Curriculum Committee
University Senate

November 22, 2013

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

1. Identification of course:

- 1.1 Course prefix (subject area) and number: BIOL 319
- 1.2 Course title: Introduction to Molecular and Cell Biology

2. Current prerequisites/corequisites:

Prerequisites: BIOL 120-121 and BIOL 122-123; CHEM 120-121
Corequisite: BIOL 322

3. Proposed prerequisites/corequisites:

Prerequisites: BIOL 120/121 and BIOL 122/123 with grades of "C" or higher; CHEM 120/121
Corequisite: BIOL 322 or BIOL 329

4. Rationale for the revision of prerequisites: Grades of "C" or higher are proposed as performance requirements for the current Biology prerequisite series as a means of improving the chances of success for students pursuing a Major in Biology. These are the primary core courses that all Biology Majors students must take prior to enrolling in subsequent courses. The addition of BIOL 329 (Genetics Laboratory) as a corequisite alternative to BIOL 322 (Introduction to Molecular and Cell Biology Laboratory) reflects the philosophical similarities in how the two lab courses are taught. Both courses emphasize the development of good lab practices.

5. Effect on completion of major/minor sequence: None

6. Proposed term for implementation: Fall 2014

7. Dates of prior committee approvals:

Department of Biology

November 22, 2013

Ogden College Curriculum Committee

Professional Education Council

Undergraduate Curriculum Committee

University Senate

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: BIOL 322
 - 1.2 Course title: Introduction to Molecular and Cell Biology Laboratory
- 2. Current corequisite:** BIOL 319
- 3. Proposed corequisites:** BIOL 319 or BIOL 327
- 4. Rationale for the revision of prerequisites:** Both BIOL 319 (Introduction to Molecular and Cell Biology) and BIOL 327 (Genetics) provide a solid content background for BIOL 322.
- 5. Effect on completion of major/minor sequence:** None
- 6. Proposed term for implementation:** Fall 2014
- 7. Dates of prior committee approvals:**

Department of Biology
Ogden College Curriculum Committee
Professional Education Council
Undergraduate Curriculum Committee
University Senate

November 22, 2013

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: BIOL 325
 - 1.2 Course title: Insect Biodiversity
- 2. Current prerequisites:** BIOL 120-121 and BIOL 122-123 or consent of instructor
- 3. Proposed prerequisites:** BIOL 120/121 and BIOL 122/123 with grades of "C" or higher or consent of instructor
- 4. Rationale for the revision of prerequisites:** Grades of "C" or higher are proposed as performance requirements for the current prerequisite series as a means of improving the chances of success for students pursuing a Major in Biology. These are the primary core courses that all Biology Majors students must take prior to enrolling in subsequent courses.
- 5. Effect on completion of major/minor sequence:** None
- 6. Proposed term for implementation:** Fall 2014
- 7. Dates of prior committee approvals:**

Department of Biology

Ogden College Curriculum Committee

Professional Education Council

Undergraduate Curriculum Committee

University Senate

November 22, 2013

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

1. **Identification of course:**
 - 1.1 Course prefix (subject area) and number: BIOL 326
 - 1.2 Course title: Ornithology
2. **Current prerequisites:** BIOL 120-121 and BIOL 122-123
3. **Proposed prerequisites:** BIOL 120/121 and BIOL 122/123 with grades of "C" or higher
4. **Rationale for the revision of prerequisites:** Grades of "C" or higher are proposed as performance requirements for the current prerequisite series as a means of improving the chances of success for students pursuing a Major in Biology. These are the primary core courses that all Biology Majors students must take prior to enrolling in subsequent courses.
5. **Effect on completion of major/minor sequence:** None
6. **Proposed term for implementation:** Fall 2014
7. **Dates of prior committee approvals:**

Department of Biology
Ogden College Curriculum Committee
Professional Education Council
Undergraduate Curriculum Committee
University Senate

November 22, 2013

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

1. Identification of course:

- 1.1 Course prefix (subject area) and number: BIOL 328
- 1.2 Course title: Immunology

2. Current prerequisites:

Prerequisites: BIOL 319 and 322 or BIOL 327

3. Proposed prerequisites:

Prerequisites: BIOL 319 or BIOL 327 and BIOL 322 or BIOL 329

4. Rationale for the revision of prerequisites: The addition of BIOL 329 (Genetics Laboratory) as a corequisite alternative to BIOL 322 (Introduction to Molecular and Cell Biology Laboratory) for either BIOL 319 (Introduction to Molecular and Cell Biology) or BIOL 327 (Genetics) reflects the philosophical similarities in how the two laboratory courses are taught. Both courses emphasize the development of good lab practices that are needed for the integrated laboratory component of BIOL 328.

5. Effect on completion of major/minor sequence: None

6. Proposed term for implementation: Fall 2014

7. Dates of prior committee approvals:

Department of Biology

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

November 22, 2013

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: BIOL 334
 - 1.2 Course title: Animal Behavior
- 2. Current prerequisites:** BIOL 120-121 and BIOL 122-123
- 3. Proposed prerequisites:** BIOL 120/121 and BIOL 122/123 with grades of "C" or higher
- 4. Rationale for the revision of prerequisites:** Grades of "C" or higher are proposed as performance requirements for the current prerequisite series as a means of improving the chances of success for students pursuing a Major in Biology. These are the primary core courses that all Biology Majors students must take prior to enrolling in subsequent courses.
- 5. Effect on completion of major/minor sequence:** None
- 6. Proposed term for implementation:** Fall 2014
- 7. Dates of prior committee approvals:**

Department of Biology
Ogden College Curriculum Committee
Professional Education Council
Undergraduate Curriculum Committee
University Senate

November 22, 2013

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: BIOL 335
 - 1.2 Course title: Neurobiology
- 2. Current prerequisites:** BIOL 120-121 and BIOL 122-123; or consent of instructor
- 3. Proposed prerequisites:** BIOL 120/121 and BIOL 122/123 with grades of "C" or higher or consent of instructor
- 4. Rationale for the revision of prerequisites:** Grades of "C" or higher are proposed as performance requirements for the current prerequisite series as a means of improving the chances of success for students pursuing a Major in Biology. These are the primary core courses that all Biology Majors students must take prior to enrolling in subsequent courses.
- 5. Effect on completion of major/minor sequence:** None
- 6. Proposed term for implementation:** Fall 2014
- 7. Dates of prior committee approvals:**

Department of Biology

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

November 22, 2013

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)**

Contact Person: Claire Rinehart, claire.rinehart@wku.edu, 270-745-5997

1. Identification of course:

- 1.1 Course prefix (subject area) and number: BIOL 350
- 1.2 Course title: Introduction to Recombinant Genetics

2. Current prerequisites:

Prerequisites: BIOL 319 and 322

3. Proposed prerequisites:

Prerequisites: BIOL 120/121 and BIOL 122/123 with grades of "C" or higher or consent of instructor

4. Rationale for the revision of prerequisites: The majors-level BIOL 120/121 and BIOL 122/123 freshman sequence covers cellular, molecular, and evolutionary biology concepts at a level sufficient for students to be prepared for BIOL 350. Hence, BIOL 120/121 and BIOL 122/123 are appropriate prerequisites. Much of the content covered in BIOL 319 and BIOL 322 is unique from concepts taught in BIOL 350.

Grades of "C" or higher are proposed as performance requirements for the proposed prerequisite series as a means of improving the chances of success for students pursuing a Major in Biology. These are the primary core courses that all Biology Majors students must take prior to enrolling in subsequent courses.

5. Effect on completion of major/minor sequence: None

6. Proposed term for implementation: Fall 2014

7. Dates of prior committee approvals:

Department of Biology

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

November 22, 2013

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: BIOL 377
 - 1.2 Course title: Animal Form and Function
- 2. Current prerequisites:** BIOL 120-121 and BIOL 122-123 or consent of instructor
- 3. Proposed prerequisites:** BIOL 120/121 and BIOL 122/123 with grades of "C" or higher or consent of instructor
- 4. Rationale for the revision of prerequisites:** Grades of "C" or higher are proposed as performance requirements for the current prerequisite series as a means of improving the chances of success for students pursuing a Major in Biology. These are the primary core courses that all Biology Majors students must take prior to enrolling in subsequent courses.
- 5. Effect on completion of major/minor sequence:** None
- 6. Proposed term for implementation:** Fall 2014
- 7. Dates of prior committee approvals:**

Department of Biology

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

November 22, 2013

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: BIOL 399
 - 1.2 Course title: Research Problems in Biology
- 2. Current prerequisites/corequisites:** Consent of research project director
- 3. Proposed prerequisites/corequisite:** BIOL 120/121 and BIOL 122/123 with grades of "C" or higher and consent of research project director
- 4. Rationale for the revision of prerequisites:** Grades of "C" or higher are proposed as performance requirements for the current prerequisite series as a means of improving the chances of success for students pursuing a Major in Biology. These are the primary core courses that all Biology Majors students must take prior to enrolling in subsequent courses.
- 5. Effect on completion of major/minor sequence:** None
- 6. Proposed term for implementation:** Fall 2014
- 7. Dates of prior committee approvals:**

Department of Biology

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

November 22, 2013

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: BIOL 403
 - 1.2 Course title: Molecular Basis of Cancer
- 2. Current prerequisites:** BIOL 319 and BIOL 322 or equivalent
- 3. Proposed prerequisites:** BIOL 319 and BIOL 322 or BIOL 329
- 4. Rationale for the revision of prerequisites:** BIOL 329 (Genetics Laboratory) is a new corequisite alternative to BIOL 322 (Introduction to Molecular and Cell Biology Laboratory) to BIOL 319 (Introduction to Molecular and Cell Biology), reflecting the philosophical similarities in how the two lab courses are taught.
- 5. Effect on completion of major/minor sequence:** None
- 6. Proposed term for implementation:** Fall 2014
- 7. Dates of prior committee approvals:**

Department of Biology

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

November 22, 2013

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: BIOL 404
 - 1.2 Course title: Techniques and Theory of Electron Microscopy
- 2. Current prerequisites:** BIOL 120-121 and BIOL 122-123 or consent of instructor
- 3. Proposed prerequisites:** BIOL 120/121 and BIOL 122/123 with grades of "C" or higher or consent of instructor
- 4. Rationale for the revision of prerequisites:** Grades of "C" or higher are proposed as performance requirements for the current prerequisite series as a means of improving the chances of success for students pursuing a Major in Biology. These are the primary core courses that all Biology Majors students must take prior to enrolling in subsequent courses.
- 5. Effect on completion of major/minor sequence:** None
- 6. Proposed term for implementation:** Fall 2014
- 7. Dates of prior committee approvals:**

Department of Biology

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

November 22, 2013

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

1. **Identification of course:**
 - 1.1 Course prefix (subject area) and number: BIOL 407
 - 1.2 Course title: Virology
2. **Current prerequisites/corequisites:** BIOL 319 and BIOL 322
3. **Proposed prerequisites/corequisites:** BIOL 319 and BIOL 322 or BIOL 329
4. **Rationale for the revision of prerequisites:** BIOL 329 (Genetics Laboratory) is a new corequisite alternative to BIOL 322 (Introduction to Molecular and Cell Biology Laboratory) to BIOL 319 (Introduction to Molecular and Cell Biology), reflecting the philosophical similarities in how the two lab courses are taught.
5. **Effect on completion of major/minor sequence:** None
6. **Proposed term for implementation:** Fall 2014
7. **Dates of prior committee approvals:**

Department of Biology

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

November 22, 2013

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

1. Identification of course:

- 1.1 Course prefix (subject area) and number: BIOL 411
- 1.2 Course title: Cell Biology

2. Current prerequisites:

Prerequisites: BIOL 319 and 322, or BIOL 327

3. Proposed prerequisites:

Prerequisites: BIOL 319 or BIOL 327 and BIOL 322 or BIOL 329

4. Rationale for the revision of prerequisites: The addition of BIOL 329 (Genetics Laboratory) as a corequisite alternative to BIOL 322 (Introduction to Molecular and Cell Biology Laboratory) for either BIOL 319 (Introduction to Molecular and Cell Biology) or BIOL 327 (Genetics) reflects the philosophical similarities in how the two laboratory courses are taught.

5. Effect on completion of major/minor sequence: None

6. Proposed term for implementation: Fall 2014

7. Dates of prior committee approvals:

Department of Biology

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

November 22, 2013

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: BIOL 420
 - 1.2 Course title: Introduction to Toxicology
- 2. Current prerequisites:** BIOL 120-121; CHEM 314 or equivalent
- 3. Proposed prerequisites:** BIOL 120/121 and BIOL 122/123 with grades of "C" or higher or consent of instructor; CHEM 314 or equivalent
- 4. Rationale for the revision of prerequisites:** Grades of "C" or higher are proposed as performance requirements for the current Biology prerequisite series as a means of improving the chances of success for students pursuing a Major in Biology. These are the primary core courses that all Biology Majors students must take prior to enrolling in subsequent courses. The addition of BIOL 122/123 as prerequisites reflects the foundational importance of the content in this two-course sequence to all majors-level courses.
- 5. Effect on completion of major/minor sequence:** None
- 6. Proposed term for implementation:** Fall 2014
- 7. Dates of prior committee approvals:**

Department of Biology

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

November 22, 2013

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: BIOL 440
 - 1.2 Course title: Developmental Genetics

- 2. Current prerequisites:**

Prerequisites: BIOL 319 and 322

- 3. Proposed prerequisites:**

Prerequisites: BIOL 319 or BIOL 327 and BIOL 322 or BIOL 329

- 4. Rationale for the revision of prerequisites:** Both BIOL 319 (Introduction to Molecular and Cell Biology) and BIOL 327 (Genetics) provides sufficient background information for BIOL 440. The addition of BIOL 329 (Genetics Laboratory) as a corequisite alternative to BIOL 322 (Introduction to Molecular and Cell Biology Laboratory) for either BIOL 319 or BIOL 327, reflects the philosophical similarities in how the two laboratory courses are taught.

- 5. Effect on completion of major/minor sequence:** None

- 6. Proposed term for implementation:** Fall 2014

- 7. Dates of prior committee approvals:**

Department of Biology

November 22, 2013

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

1. Identification of course:

- 1.1 Course prefix (subject area) and number: BIOL 464
- 1.2 Course title: Endocrinology

2. Current prerequisites:

Prerequisites: BIOL 319/322 and BIOL 446/447 (recommended)

3. Proposed prerequisites:

Prerequisites: BIOL 319, BIOL 322 or BIOL 329, and BIOL 446/447 (recommended)

4. Rationale for the revision of prerequisites: BIOL 329 (Genetics Laboratory) is a new corequisite alternative to BIOL 322 (Introduction to Molecular and Cell Biology Laboratory) to BIOL 319 (Introduction to Molecular and Cell Biology), reflecting the philosophical similarities in how the two lab courses are taught

5. Effect on completion of major/minor sequence: None

6. Proposed term for implementation: Fall 2014

7. Dates of prior committee approvals:

Department of Biology

November 22, 2013

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: BIOL 490
 - 1.2 Course title: Plants as Alternative Therapeutics
- 2. Current prerequisites:** BIOL 120-121 and BIOL 122-123
- 3. Proposed prerequisites:** BIOL 120-121 and BIOL 122-123 with grades of "C" or higher
- 4. Rationale for the revision of prerequisites:** Grades of "C" or higher are proposed as performance requirements for the current prerequisite series as a means of improving the chances of success for students pursuing a Major in Biology. These are the primary core courses that all Biology Majors students must take prior to enrolling in subsequent courses.
- 5. Effect on completion of major/minor sequence:** None
- 6. Proposed term for implementation:** Fall 2014
- 7. Dates of prior committee approvals:**

Department of Biology

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)**

Contact Person: Claire Rinehart, claire.rinehart@wku.edu, 270-745-5997

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: BIOL 495
 - 1.2 Course title: Molecular Genetics
- 2. Current prerequisites:** BIOL 312
- 3. Proposed prerequisites/corequisite:** BIOL 319 or BIOL 327 or consent of instructor
- 4. Rationale for the revision of prerequisites:** The content of BIOL 312 is not required to understand and perform well in BIOL 495. The topics covered in BIOL 319 (Introduction to Cellular and Molecular Biology) or BIOL 327 (Genetics) are foundational and much more appropriate for BIOL 495.
- 5. Effect on completion of major/minor sequence:** None
- 6. Proposed term for implementation:** Fall 2014
- 7. Dates of prior committee approvals:**

Department of Biology

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

January 24, 2014

Proposal Date: 15 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise Course Prerequisites
(Consent Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: BIOL 496
 - 1.2 Course title: Plant Biotechnology

- 2. Current prerequisites/corequisites:** BIOL 319 and BIOL 322; AGRO 110 or BIOL 222

- 3. Proposed prerequisites/corequisites:** BIOL 319 and BIOL 322 or BIOL 329; AGRO 110 or BIOL 222/223

- 4. Rationale for the revision of prerequisites:** BIOL 329 (Genetics Laboratory) is a new corequisite alternative to BIOL 322 (Introduction to Molecular and Cell Biology Laboratory) to BIOL 319 (Introduction to Molecular and Cell Biology), reflecting the philosophical similarities in how the two lab courses are taught. BIOL 223 (Plant Biology and Diversity Laboratory) is the corequisite of BIOL 222 (Plant Biology and Diversity), with these courses are almost always taken concurrently. The content covered in BIOL 223 is relevant to BIOL 496.

- 5. Effect on completion of major/minor sequence:** None

- 6. Proposed term for implementation:** Fall 2014

- 7. Dates of prior committee approvals:**

Department of Biology

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

November 22, 2013

10/23/2013

**Ogden College of Science and Engineering
Department of Computer Science
Proposal to Revise Course Prerequisites/Corequisites
(Consent Item)**

Contact Person: Rong Yang
rong.yang@wku.edu
270-745-2940

1. Identification of course:

- 1.1 Course prefix (subject area) and number: CS170
- 1.2 Course title: Problem Solving and Programming

2. Current prerequisites/corequisites/special requirements:

2 years of high school algebra

3. Proposed prerequisites/corequisites/special requirements:

Prerequisite: Eligibility for MATH 116

4. Rationale for the revision of prerequisites/corequisites/special requirements:

Students need certain math maturity to succeed in CS170.

5. Effect on completion of major/minor sequence:

No effect on completion

6. Proposed term for implementation:

Fall 2014

7. Dates of prior committee approvals:

Computer Science Department _____ 11/12/2013 _____

Ogden College Curriculum Committee _____

Undergraduate Curriculum Committee _____

University Senate _____

**Ogden College of Science and Engineering
Department of Geography and Geology
Proposal to Revise Course Title
(Consent Item)**

Contact Person: David Keeling, david.keeling@wku.edu, 5-4555

1. Identification of proposed course:

- 1.1 Course prefix (subject area) and number: GEOG 200
- 1.2 Course title: Introduction to Latin America
- 1.3 Credit Hours: 3

2. Proposed course title: Latin American Society: Past and Present

3. Proposed abbreviated course title: Latin America Past and Present
(maximum of 30 characters/spaces)

4. Rationale for the revision of course title:

The course has been approved as a Connections (Society and Culture category) course for the new Colonnade program. The title better reflects the nature and intent of the course. This course is cross-listed with HIST 200 and SPAN 200.

5. Proposed term for implementation: Fall 2014

6. Dates of prior committee approvals:

Department of Geography and Geology	<u>12/13/2013</u> _____
Ogden College Curriculum Committee	_____ _____
WKU Colonnade Committee	_____ _____
Undergraduate Curriculum Committee	_____ _____
University Senate	_____ _____

Proposal Date: 12/13/2013

**Ogden College of Science and Engineering
Department of Geography and Geology
Proposal to Delete a Course
(Consent Item)**

Contact Person: Kevin Cary, (kevin.cary@wku.edu), 5-4555

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: GEOG 318
- 1.2 Course title: Geographic Information Systems for Engineers

2. Rationale for the course deletion: Students in the Civil Engineering, Flood Management, and Land Surveying programs take the GEOG 316-317 sequence, so GEOG 318 is redundant. Course has not been offered since 200910.

3. Effect of course deletion on programs or other departments, if known: None

4. Proposed term for implementation: 201430

5. Dates of prior committee approvals:

Department of Geography and Geology	<u>12/13/2013</u>
Ogden College Curriculum Committee	_____
University Curriculum Committee	_____
University Senate	_____

Proposal Date: 11/4/13

**Ogden College of Science and Engineering
Department of Geography and Geology
Proposal to Revise Course Prerequisites
(Consent Item)**

Contact Person: Aaron Celestian, aaron.celestian@wku.edu, 7-4555

1. Identification of course:

- 1.1 Course prefix (subject area) and number: GEOL 430
- 1.2 Course title: Optical Mineralogy

2. Current prerequisites: GEOL 330

3. Proposed prerequisites: GEOL 325 OR GEOL 330

4. Rationale for the revision of prerequisites:

This change allows students in the Geology B.A. track to take this upper-division elective course. It helps students to graduate on time by giving them a broader base of electives to choose from, and it also helps to fill the class to ensure that the offering makes with > 10 students in the section when offered. This course is typically offered every third semester.

5. Effect on completion of major/minor sequence:

This change will help Geology B.A. students graduate faster by giving them more upper-division elective choices.

6. Proposed term for implementation: 201510

7. Dates of prior committee approvals:

Department of Geography and Geology
Ogden College Curriculum Committee
Undergraduate Curriculum Committee
University Senate

12/13/2013

Proposal Date: January 21, 2014

**Ogden College
Department of Geography and Geology
Proposal to Revise Course Prerequisites/Corequisites
(Consent Item)**

Contact Person: Gregory Goodrich, gregory.goodrich@wku.edu, 745-5986

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: METR 422
 - 1.2 Course title: Physical Climatology
- 2. Current prerequisites/corequisites/special requirements:** GEOG 424 and MATH 237 and PHYS 265 or permission of instructor
- 3. Proposed prerequisites/corequisites/special requirements:** METR 324 and MATH 237, both with grades of C or better
- 4. Rationale for the revision of prerequisites/corequisites/special requirements:** The prefix and number of GEOG 424 recently changed to METR 324. The PHYS 265 requirement was dropped because most students cannot fit PHYS 265 into their schedule until their senior year. Grades of C or better for METR 324 and MATH 237 will ensure only qualified students can take METR 422. In the past, students who received a D in either METR 324 or MATH 237 have often not passed METR 422.
- 5. Effect on completion of major/minor sequence:** No effect on completion is expected. Historically, students who received a D in either METR 324 or MATH 237 have often not graduated.
- 6. Proposed term for implementation:** Fall 2014
- 7. Dates of prior committee approvals:**

Department of Geography and Geology
Ogden College Curriculum Committee
Undergraduate Curriculum Committee
University Senate

1/28/2014

Proposal Date: January 21, 2014

**Ogden College
Department of Geography and Geology
Proposal to Revise Course Prerequisites/Corequisites
(Consent Item)**

Contact Person: Gregory Goodrich, gregory.goodrich@wku.edu, 745-5986

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: METR 431
 - 1.2 Course title: Dynamic Meteorology I
- 2. Current prerequisites/corequisites/special requirements:** GEOG 424 and MATH 237 and PHYS 265 or permission of instructor
- 3. Proposed prerequisites/corequisites/special requirements:** METR 324 and MATH 237, both with grades of C or better
- 4. Rationale for the revision of prerequisites/corequisites/special requirements:** The prefix and number of GEOG 424 recently changed to METR 324. The PHYS 265 requirement was dropped because most students cannot fit PHYS 265 into their schedule until their senior year. Grades of C or better for METR 324 and MATH 237 will ensure only qualified students can take METR 431. In the past, students who received a D in either METR 324 or MATH 237 have often not passed METR 431.
- 5. Effect on completion of major/minor sequence:** No effect on completion is expected. Historically, students who received a D in either METR 324 or MATH 237 have often not graduated.
- 6. Proposed term for implementation:** Fall 2014
- 7. Dates of prior committee approvals:**

Department of Geography and Geology
Ogden College Curriculum Committee
Undergraduate Curriculum Committee
University Senate

1/28/2014

Proposal Date: January 21, 2014

**Ogden College
Department of Geography and Geology
Proposal to Revise Course Prerequisites/Corequisites
(Consent Item)**

Contact Person: Gregory Goodrich, gregory.goodrich@wku.edu, 745-5986

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: METR 432
 - 1.2 Course title: Synoptic Meteorology

- 2. Current prerequisites/corequisites/special requirements:** GEOG 424 and MATH 237 and PHYS 265 or permission of instructor

- 3. Proposed prerequisites/corequisites/special requirements:** METR 324 and MATH 237, both with grades of C or better

- 4. Rationale for the revision of prerequisites/corequisites/special requirements:** The prefix and number of GEOG 424 recently changed to METR 324. The PHYS 265 requirement was dropped because most students cannot fit PHYS 265 into their schedule until their senior year. Grades of C or better for METR 324 and MATH 237 will ensure only qualified students can take METR 432. In the past, students who received a D in either METR 324 or MATH 237 have often not passed METR 432.

- 5. Effect on completion of major/minor sequence:** No effect on completion is expected. Historically, students who received a D in either METR 324 or MATH 237 have often not graduated.

- 6. Proposed term for implementation:** Fall 2014

- 7. Dates of prior committee approvals:**

Department of Geography and Geology
Ogden College Curriculum Committee
Undergraduate Curriculum Committee
University Senate

1/28/2014

Proposal Date: January 21, 2014

**Ogden College
Department of Geography and Geology
Proposal to Revise Course Prerequisites/Corequisites
(Consent Item)**

Contact Person: Gregory Goodrich, gregory.goodrich@wku.edu, 745-5986

1. **Identification of course:**
 - 1.1 Course prefix (subject area) and number: METR 433
 - 1.2 Course title: Dynamic Meteorology II
2. **Current prerequisites/corequisites/special requirements:** GEOG 431
3. **Proposed prerequisites/corequisites/special requirements:** METR 431 with a grade of C or better
4. **Rationale for the revision of prerequisites/corequisites/special requirements:** The prefix and number of GEOG 431 recently changed to METR 431. A grade of C or better for METR 431 will ensure only qualified students can take METR 433. In the past, students who received a D in METR 431 have often not passed METR 433.
5. **Effect on completion of major/minor sequence:** No effect on completion is expected. Historically, students who received a D in METR 431 have often not graduated.
6. **Proposed term for implementation:** Fall 2014
7. **Dates of prior committee approvals:**

Department of Geography and Geology
Ogden College Curriculum Committee
Undergraduate Curriculum Committee
University Senate

1/28/2014

Proposal Date: January 21, 2014

**Ogden College
Department of Geography and Geology
Proposal to Revise Course Prerequisites/Corequisites
(Consent Item)**

Contact Person: Gregory Goodrich, gregory.goodrich@wku.edu, 745-5986

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: METR 437
 - 1.2 Course title: Mesoscale Meteorology

- 2. Current prerequisites/corequisites/special requirements:** GEOG 424 and MATH 237 and PHYS 265 or permission of instructor

- 3. Proposed prerequisites/corequisites/special requirements:** METR 432 with a grade of C or better

- 4. Rationale for the revision of prerequisites/corequisites/special requirements:** The meteorology program course rotation now has METR 432 taught every other fall while METR 437 is taught the following spring, which makes METR 432 a natural prerequisite for METR 437. A grade of C or better for METR 432 will ensure only qualified students can take METR 437. In the past, students who received a D in METR 432 have often not passed METR 437.

- 5. Effect on completion of major/minor sequence:** No effect on completion is expected. Historically, students who received a D in METR 432 have often not graduated.

- 6. Proposed term for implementation:** Fall 2014

- 7. Dates of prior committee approvals:**

Department of Geography and Geology
Ogden College Curriculum Committee
Undergraduate Curriculum Committee
University Senate

1/28/2014

Proposal Date: January 21, 2014

**Ogden College
Department of Geography and Geology
Proposal to Revise Course Prerequisites/Corequisites
(Consent Item)**

Contact Person: Gregory Goodrich, gregory.goodrich@wku.edu, 745-5986

1. **Identification of course:**
 - 1.1 Course prefix (subject area) and number: METR 438
 - 1.2 Course title: Physical Meteorology
2. **Current prerequisites/corequisites/special requirements:** GEOG 424 and MATH 237 and PHYS 265 or permission of instructor
3. **Proposed prerequisites/corequisites/special requirements:** METR 431 with a grade of C or better
4. **Rationale for the revision of prerequisites/corequisites/special requirements:** The meteorology program course rotation now has METR 431 taught every other fall while METR 438 is taught the following spring, which makes METR 431 a natural prerequisite for METR 438. A grade of C or better for METR 431 will ensure only qualified students can take METR 438. In the past, students who received a D in METR 431 have often not passed METR 438.
5. **Effect on completion of major/minor sequence:** No effect on completion is expected. Historically, students who received a D in METR 431 have often not graduated.
6. **Proposed term for implementation:** Fall 2014
7. **Dates of prior committee approvals:**

Department of Geography and Geology
Ogden College Curriculum Committee
Undergraduate Curriculum Committee
University Senate

1/28/2014

Proposal Date: January 21, 2014

**Ogden College
Department of Geography and Geology
Proposal to Revise Course Prerequisites/Corequisites
(Consent Item)**

Contact Person: Gregory Goodrich, gregory.goodrich@wku.edu, 745-5986

- 1. Identification of course:**
 - 1.1 Course prefix (subject area) and number: METR 439
 - 1.2 Course title: Atmospheric Modeling
- 2. Current prerequisites/corequisites/special requirements:** CS 245 and GEOG 424
- 3. Proposed prerequisites/corequisites/special requirements:** METR 324 and CS 170 both with grades of C or better
- 4. Rationale for the revision of prerequisites/corequisites/special requirements:** CS 245 has been replaced by CS 170 as the programming language for the meteorology degree. The prefix and number of GEOG 424 has been changed to METR 324. Requiring a grade of C or better for METR 324 and CS 170 will ensure only qualified students can take METR 439. In the past, students who received a D in METR 324 have often not passed METR 439.
- 5. Effect on completion of major/minor sequence:** No effect on completion is expected. Historically, students who received a D in METR 324 or CS 170 have often not graduated.
- 6. Proposed term for implementation:** Fall 2014
- 7. Dates of prior committee approvals:**

Department of Geography and Geology
Ogden College Curriculum Committee
Undergraduate Curriculum Committee
University Senate

1/28/2014

Proposal Date: 12/13/2013

**Ogden College of Science and Engineering
Department of Geography and Geology
Proposal to Delete a Program
(Consent Item)**

Contact Person: Aaron Celestian, aaron.celestian.wku.edu, 5-5977

1. Identification of program:

- 1.1 Program reference number: 677
- 1.2 Program title: Geology (Professional Major)
- 1.3 Credit hours: 40

2. Rationale for the program deletion: The Department has revamped its extended professional Geology major (#577) to meet changing industry and business demands, and it already has a non-professional Geology B.A. program (#676) for prospective teachers and those interested in earth science who do not need advanced STEM coursework for their career goals. Thus, the Geology major (#677) is redundant and is being deleted.

3. Effect on current students or other departments, if known: Current students either will enroll in the revamped extended professional B.S. Geology major (#577) or in the Geology B.A. major (#676). As of January 2014, 32 students were enrolled in this major, with several graduating in the next calendar year, and the remainder electing to change either to the #577 or #676 programs.

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department of Geography and Geology	_____12/13/2013_____
Ogden College Curriculum Committee	_____
Undergraduate Curriculum Committee	_____
University Senate	_____

Proposal Date: December 16, 2013

**Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Create an Equivalent Course
(Consent Item)**

Contact Person: Andrew Mienaltowski, andrew.mienaltowski@wku.edu, Office phone: (270) 745-2353
or Sharon Mutter, Sharon.mutter@wku.edu, Office phone: (270) 745-2353, Department of
Psychological Sciences

1. Identification of existing course:

- 1.1 Current course prefix (subject area) and number: PSY 100
- 1.2 Course title: Introduction to Psychology

2. Identification of proposed equivalent course prefix(es) and numbers: PSYS 100

3. Rationale for each equivalent course: The Department of Psychological Sciences was created in the Ogden College of Science and Engineering on November 1, 2013. This department, along with the Department of Psychology in the College of Education and Behavioral Sciences, offer courses for the undergraduate Psychology programs and minor. The Department of Psychological Sciences seeks to offer equivalent courses for undergraduate students using its own course prefix.

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department of Psychological Sciences

January 6, 2014

Department of Psychology

OCSE Curriculum Committee

CEBS Curriculum Committee

Undergraduate Curriculum Committee

University Senate

Proposal Date: December 16, 2013

**Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Create an Equivalent Course
(Consent Item)**

Contact Person: Andrew Mienaltowski, andrew.mienaltowski@wku.edu, Office phone: (270) 745-2353
or Sharon Mutter, Sharon.mutter@wku.edu, Office phone: (270) 745-2353, Department of Psychological Sciences

1. Identification of existing course:

- 1.1 Current course prefix (subject area) and number: PSY 210
- 1.2 Course title: Research Methods in Psychology

2. Identification of proposed equivalent course prefix(es) and numbers: PSYS 210

3. Rationale for each equivalent course: The Department of Psychological Sciences was created in the Ogden College of Science and Engineering on November 1, 2013. This department, along with the Department of Psychology in the College of Education and Behavioral Sciences, offer courses for the undergraduate Psychology programs and minor. The Department of Psychological Sciences seeks to offer equivalent courses for undergraduate students using its own course prefix.

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department of Psychological Sciences

January 6, 2014

Department of Psychology

OCSE Curriculum Committee

CEBS Curriculum Committee

Undergraduate Curriculum Committee

University Senate

Proposal Date: December 16, 2013

**Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Create an Equivalent Course
(Consent Item)**

Contact Person: Andrew Mienaltowski, andrew.mienaltowski@wku.edu, Office phone: (270) 745-2353
or Sharon Mutter, Sharon.mutter@wku.edu, Office phone: (270) 745-2353, Department of Psychological Sciences

1. Identification of existing course:

- 1.1 Current course prefix (subject area) and number: PSY 211
- 1.2 Course title: Research Methods in Psychology Laboratory

2. Identification of proposed equivalent course prefix(es) and numbers: PSYS 211

3. Rationale for each equivalent course: The Department of Psychological Sciences was created in the Ogden College of Science and Engineering on November 1, 2013. This department, along with the Department of Psychology in the College of Education and Behavioral Sciences, offer courses for the undergraduate Psychology programs and minor. The Department of Psychological Sciences seeks to offer equivalent courses for undergraduate students using its own course prefix.

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department of Psychological Sciences

January 6, 2014

Department of Psychology

OCSE Curriculum Committee

CEBS Curriculum Committee

Undergraduate Curriculum Committee

University Senate

Proposal Date: December 6, 2013

**Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Create an Equivalent Course
(Consent Item)**

Contact Person: Andrew Mienaltowski, andrew.mienaltowski@wku.edu, Office phone: (270) 745-2353
or Sharon Mutter, Sharon.mutter@wku.edu, Office phone: (270) 745-2353, Department of Psychological Sciences

1. Identification of existing course:

- 1.1 Current course prefix (subject area) and number: PSY 220
- 1.2 Course title: Introduction to Developmental Psychology

2. Identification of proposed equivalent course prefix(es) and numbers: PSYS 220

3. Rationale for each equivalent course: The Department of Psychological Sciences was created in the Ogden College of Science and Engineering on November 1, 2013. This department, along with the Department of Psychology in the College of Education and Behavioral Sciences, offer courses for the undergraduate Psychology programs and minor. The Department of Psychological Sciences seeks to offer equivalent courses for undergraduate students using its own course prefix.

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department of Psychological Sciences

January 6, 2014

Department of Psychology

OCSE Curriculum Committee

CEBS Curriculum Committee

Undergraduate Curriculum Committee

University Senate

Proposal Date: December 16, 2013

**Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Create an Equivalent Course
(Consent Item)**

Contact Person: Andrew Mienaltowski, andrew.mienaltowski@wku.edu, Office phone: (270) 745-2353
or Sharon Mutter, Sharon.mutter@wku.edu, Office phone: (270) 745-2353, Department of
Psychological Sciences

1. Identification of existing course:

- 1.1 Current course prefix (subject area) and number: PSY 290
- 1.2 Course title: Supervised Study in Psychology

2. Identification of proposed equivalent course prefix(es) and numbers: PSYS 290

3. Rationale for each equivalent course: The Department of Psychological Sciences was created in the Ogden College of Science and Engineering on November 1, 2013. This department, along with the Department of Psychology in the College of Education and Behavioral Sciences, offer courses for the undergraduate Psychology programs and minor. The Department of Psychological Sciences seeks to offer equivalent courses for undergraduate students using its own course prefix.

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department of Psychological Sciences

January 6, 2014

Department of Psychology

OCSE Curriculum Committee

CEBS Curriculum Committee

Undergraduate Curriculum Committee

University Senate

Proposal Date: December 16, 2013

**Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Create an Equivalent Course
(Consent Item)**

Contact Person: Andrew Mienaltowski, andrew.mienaltowski@wku.edu, Office phone: (270) 745-2353
or Sharon Mutter, Sharon.mutter@wku.edu, Office phone: (270) 745-2353, Department of
Psychological Sciences

1. Identification of existing course:

- 1.1 Current course prefix (subject area) and number: PSY 313
- 1.2 Course title: Statistics in Psychology

2. Identification of proposed equivalent course prefix(es) and numbers: PSYS 313

3. Rationale for each equivalent course: The Department of Psychological Sciences was created in the Ogden College of Science and Engineering on November 1, 2013. This department, along with the Department of Psychology in the College of Education and Behavioral Sciences, offer courses for the undergraduate Psychology programs and minor. The Department of Psychological Sciences seeks to offer equivalent courses for undergraduate students using its own course prefix.

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department of Psychological Sciences

January 6, 2014

Department of Psychology

OCSE Curriculum Committee

CEBS Curriculum Committee

Undergraduate Curriculum Committee

University Senate

Proposal Date: December 16, 2013

**Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Create an Equivalent Course
(Consent Item)**

Contact Person: Andrew Mienaltowski, andrew.mienaltowski@wku.edu, Office phone: (270) 745-2353
or Sharon Mutter, Sharon.mutter@wku.edu, Office phone: (270) 745-2353, Department of Psychological Sciences

1. Identification of existing course:

- 1.1 Current course prefix (subject area) and number: PSY 331
- 1.2 Course title: Psychology of Learning

2. Identification of proposed equivalent course prefix(es) and numbers: PSYS 331

3. Rationale for each equivalent course: The Department of Psychological Sciences was created in the Ogden College of Science and Engineering on November 1, 2013. This department, along with the Department of Psychology in the College of Education and Behavioral Sciences, offer courses for the undergraduate Psychology programs and minor. The Department of Psychological Sciences seeks to offer equivalent courses for undergraduate students using its own course prefix.

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department of Psychological Sciences

January 6, 2014

Department of Psychology

OCSE Curriculum Committee

CEBS Curriculum Committee

Undergraduate Curriculum Committee

University Senate

Proposal Date: December 16, 2013

**Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Create an Equivalent Course
(Consent Item)**

Contact Person: Andrew Mienaltowski, andrew.mienaltowski@wku.edu, Office phone: (270) 745-2353
or Sharon Mutter, Sharon.mutter@wku.edu, Office phone: (270) 745-2353, Department of Psychological Sciences

1. Identification of existing course:

- 1.1 Current course prefix (subject area) and number: PSY 350
- 1.2 Course title: Social Psychology

2. Identification of proposed equivalent course prefix(es) and numbers: PSYS 350

3. Rationale for each equivalent course: The Department of Psychological Sciences was created in the Ogden College of Science and Engineering on November 1, 2013. This department, along with the Department of Psychology in the College of Education and Behavioral Sciences, offer courses for the undergraduate Psychology programs and minor. The Department of Psychological Sciences seeks to offer equivalent courses for undergraduate students using its own course prefix.

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department of Psychological Sciences

January 6, 2014

Department of Psychology

OCSE Curriculum Committee

CEBS Curriculum Committee

Undergraduate Curriculum Committee

University Senate

Proposal Date: December 16, 2013

**Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Create an Equivalent Course
(Consent Item)**

Contact Person: Andrew Mienaltowski, andrew.mienaltowski@wku.edu, Office phone: (270) 745-2353
or Sharon Mutter, Sharon.mutter@wku.edu, Office phone: (270) 745-2353, Department of Psychological Sciences

1. Identification of existing course:

- 1.1 Current course prefix (subject area) and number: PSY 440
- 1.2 Course title: Abnormal Psychology

2. Identification of proposed equivalent course prefix(es) and numbers: PSYS 440

3. Rationale for each equivalent course: The Department of Psychological Sciences was created in the Ogden College of Science and Engineering on November 1, 2013. This department, along with the Department of Psychology in the College of Education and Behavioral Sciences, offer courses for the undergraduate Psychology programs and minor. The Department of Psychological Sciences seeks to offer equivalent courses for undergraduate students using its own course prefix.

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department of Psychological Sciences

January 6, 2014

Department of Psychology

OCSE Curriculum Committee

CEBS Curriculum Committee

Undergraduate Curriculum Committee

University Senate

Proposal Date: December 16, 2013

**Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Create an Equivalent Course
(Consent Item)**

Contact Person: Andrew Mienaltowski, andrew.mienaltowski@wku.edu, Office phone: (270) 745-2353
or Sharon Mutter, Sharon.mutter@wku.edu, Office phone: (270) 745-2353, Department of
Psychological Sciences

1. Identification of existing course:

- 1.1 Current course prefix (subject area) and number: PSY 481
- 1.2 Course title: History of Psychology

2. Identification of proposed equivalent course prefix(es) and numbers: PSYS 481

3. Rationale for each equivalent course: The Department of Psychological Sciences was created in the Ogden College of Science and Engineering on November 1, 2013. This department, along with the Department of Psychology in the College of Education and Behavioral Sciences, offer courses for the undergraduate Psychology programs and minor. The Department of Psychological Sciences seeks to offer equivalent courses for undergraduate students using its own course prefix.

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department of Psychological Sciences

January 6, 2014

Department of Psychology

OCSE Curriculum Committee

CEBS Curriculum Committee

Undergraduate Curriculum Committee

University Senate

Proposal Date: December 16, 2013

**Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Create an Equivalent Course
(Consent Item)**

Contact Person: Andrew Mienaltowski, andrew.mienaltowski@wku.edu, Office phone: (270) 745-2353
or Sharon Mutter, Sharon.mutter@wku.edu, Office phone: (270) 745-2353, Department of Psychological Sciences

1. Identification of existing course:

- 1.1 Current course prefix (subject area) and number: PSY 490
- 1.2 Course title: Research, Readings, or Special Projects in Psychology

2. Identification of proposed equivalent course prefix(es) and numbers: PSYS 490

3. Rationale for each equivalent course: The Department of Psychological Sciences was created in the Ogden College of Science and Engineering on November 1, 2013. This department, along with the Department of Psychology in the College of Education and Behavioral Sciences, offer courses for the undergraduate Psychology programs and minor. The Department of Psychological Sciences seeks to offer equivalent courses for undergraduate students using its own course prefix.

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department of Psychological Sciences	_____ January 6, 2014
Department of Psychology	_____
OCSE Curriculum Committee	_____
CEBS Curriculum Committee	_____
Undergraduate Curriculum Committee	_____
University Senate	_____

Proposal Date: December 16, 2013

**Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Create an Equivalent Course
(Consent Item)**

Contact Person: Andrew Mienaltowski, andrew.mienaltowski@wku.edu, Office phone: (270) 745-2353
or Sharon Mutter, Sharon.mutter@wku.edu, Office phone: (270) 745-2353, Department of
Psychological Sciences

1. Identification of existing course:

- 1.1 Current course prefix (subject area) and number: PSY 499
- 1.2 Course title: Senior Seminar in Psychology

2. Identification of proposed equivalent course prefix(es) and numbers: PSYS 499

3. Rationale for each equivalent course: The Department of Psychological Sciences was created in the Ogden College of Science and Engineering on November 1, 2013. This department, along with the Department of Psychology in the College of Education and Behavioral Sciences, offer courses for the undergraduate Psychology programs and minor. The Department of Psychological Sciences seeks to offer equivalent courses for undergraduate students using its own course prefix.

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department of Psychological Sciences

January 6, 2014

Department of Psychology

OCSE Curriculum Committee

CEBS Curriculum Committee

Undergraduate Curriculum Committee

University Senate

Proposal Date: January 2, 2014

**Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Revise Course Number
(Consent Item)**

Contact Person: Sharon A. Mutter, email: sharon.mutter@wku.edu, phone: 5-4389

1. Identification of proposed course

- 1.1 Course prefix (subject area) and number: PSYS 345
- 1.2 Course title: PSYCHOLOGY OF SEXUALITY

2. Proposed course number: PSYS 483

3. Rationale for revision of course number: A new course numbering system was developed for the Department of Psychological Sciences and this change is required in order to make the number for this course consistent with this system.

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department of Psychological Sciences
OCSE Curriculum Committee
Undergraduate Curriculum Committee
University Senate

January 6, 2014

Proposal Date: January 2, 2014

**Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Revise Course Number
(Consent Item)**

Contact Person: Sharon A. Mutter, email: sharon.mutter@wku.edu, phone: 5-4389

1. Identification of proposed course

- 1.1 Course prefix (subject area) and number: PSYS 405
- 1.2 Course title: COGNITIVE PSYCHOLOGY

2. Proposed course number: PSYS 333

3. Rationale for revision of course number: A new course numbering system was developed for the Department of Psychological Sciences and this change is required in order to make the number for this course consistent with this system.

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department of Psychological Sciences
OCSE Curriculum Committee
Undergraduate Curriculum Committee
University Senate

January 6, 2014

Proposal Date: January 2, 2014

**Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Revise Course Number
(Consent Item)**

Contact Person: Sharon A. Mutter, email: sharon.mutter@wku.edu, phone: 5-4389

1. Identification of proposed course

- 1.1 Course prefix (subject area) and number: PSYS 407
- 1.2 Course title: PSYCHOLOGY OF LANGUAGE

2. Proposed course number: PSYS 431

3. Rationale for revision of course number: A new course numbering system was developed for the Department of Psychological Sciences and this change is required in order to make the number for this course consistent with this system.

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department of Psychological Sciences
OCSE Curriculum Committee
Undergraduate Curriculum Committee
University Senate

January 6, 2014

Proposal Date: January 2, 2014

**Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Revise Course Number
(Consent Item)**

Contact Person: Sharon A. Mutter, email: sharon.mutter@wku.edu, phone: 5-4389

1. Identification of proposed course

- 1.1 Course prefix (subject area) and number: PSYS 430
- 1.2 Course title: PSYCHOLOGY OF WOMEN

2. Proposed course number: PSYS 453

3. Rationale for revision of course number: A new course numbering system was developed for the Department of Psychological Sciences and this change is required in order to make the number for this course consistent with this system.

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department of Psychological Sciences
OCSE Curriculum Committee
Undergraduate Curriculum Committee
University Senate

January 6, 2014

Proposal Date: January 2, 2014

**Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Revise Course Number
(Consent Item)**

Contact Person: Sharon A. Mutter, email: sharon.mutter@wku.edu, phone: 5-4389

1. Identification of proposed course

- 1.1 Course prefix (subject area) and number: PSYS 480
- 1.2 Course title: BEHAVIORAL NEUROSCIENCE

2. Proposed course number: PSYS 360

3. Rationale for revision of course number: A new course numbering system was developed for the Department of Psychological Sciences and this change is required in order to make the number for this course consistent with this system.

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department of Psychological Sciences
OCSE Curriculum Committee
Undergraduate Curriculum Committee
University Senate

January 6, 2014

Proposal Date: January 2, 2014

**Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Revise Course Number
(Consent Item)**

Contact Person: Sharon A. Mutter, email: sharon.mutter@wku.edu, phone: 5-4389

1. Identification of proposed course

- 1.1 Course prefix (subject area) and number: PSYS 483
- 1.2 Course title: EVOLUTIONARY PSYCHOLOGY

2. Proposed course number: PSYS 463

3. Rationale for revision of course number: A new course numbering system was developed for the Department of Psychological Sciences and this change is required in order to make the number for this course consistent with this system.

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department of Psychological Sciences
OCSE Curriculum Committee
Undergraduate Curriculum Committee
University Senate

January 6, 2014

Proposal Date: January 2, 2014

**Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Revise Course Number
(Consent Item)**

Contact Person: Sharon A. Mutter, email: sharon.mutter@wku.edu, phone: 5-4389

1. Identification of proposed course

- 1.1 Course prefix (subject area) and number: PSYS 485
- 1.2 Course title: PSYCHOLOGY OF RELIGION

2. Proposed course number: PSYS 451

- 3. Rationale for revision of course number:** A new course numbering system was developed for the Department of Psychological Sciences and this change is required in order to make the number for this course consistent with this system.

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department of Psychological Sciences
OCSE Curriculum Committee
Undergraduate Curriculum Committee
University Senate

January 6, 2014

**Ogden College of Science & Engineering
Proposal to Create a New Certificate Program
(Action Item)**

Contact Person: Ken Crawford, kenneth.crawford@wku.edu, 745-4449

1. Identification of program:

- 1.1 Program title: Food Science Certificate
- 1.2 Required hours in program: 12
- 1.3 Special information: Interdisciplinary program, resides in the office of the Dean of Ogden College
- 1.4 Catalog description: The certificate in Food Science (reference number xxxx) is designed for a student seeking a career in the food industry. The certificate requires 12 semester hours with 6 hours required as BIOL 344 and CHEM 306 and 6 hours of elective courses from the following list of courses: AGECE 360, AGECE 468, AGRI 101, AGRI 315, AGRI 493, AGRO 110, AGRO 311, AGRO 320, AMS 301, AMS 303, AMS 352, AMS 381, ANSC 140, ANSC 141, ANSC 340, BIOL 470, HMD 151, HMD 152, HMD 211, HMD 251, or a course approved by the advisor.

2. Objectives of the proposed certificate program: The objectives of the certificate program are to provide students with a background in biology, chemistry, agriculture, nutrition or dietetics with enhanced credentials related to food science in order to assist them to gain employment and advancement in the food industry.

3. Rationale:

- 3.1 Reason for developing the proposed certificate program: In 2012, a recognized food cluster in Ogden College was established by hiring new faculty members in Agriculture, Biology, and Chemistry in 2012 to supplement existing expertise in food science and processing in the Departments of Agriculture and Architecture and Manufacturing Science. The Food Industry is a growing economic sector in Kentucky, particularly in south-central Kentucky. This proposed certificate program is the first step in an interdisciplinary curricular effort in Ogden College to build student interest and infrastructure in Food Science that will lead to a minor and a major in Food Science.
- 3.2 Relationship of the proposed certificate program to other programs now offered by the department: Food Processing and Technology
- 3.3 Relationship of the proposed certificate program to certificate programs offered in other departments: None
- 3.4 Projected enrollment in the proposed certificate program: 5-10
- 3.5 Similar certificate programs offered elsewhere in Kentucky and in other states (including programs at benchmark institutions): There are no Food Science certificate programs at any of the other seven public universities in Kentucky, or at WKU's 18 benchmarks. The University of Kentucky has a Food Science major

and a minor. No other Kentucky schools have such a program. MTSU has a Food Science major and minor and is the only benchmark to have a Food Science Program.

- 3.6 Relationship of the proposed certificate program to the university mission and objectives: The proposed food science certificate serves the university mission and objectives and prepares graduates to be “productive, engaged, and socially responsible” by encouraging students to think critically across traditional scientific disciplines and to consider the ethics and socioeconomic inequalities of a safe and nutritious source of food. The food science program has a core focus on enhancing students’ understanding of food production, food processing, food safety as well as the technical and analytical skills that are integral to providing innovative solutions to problems providing safe and nutritious food to the world’s growing population. The certificate program will help prepare students for employment in a wide variety of food related fields within the Commonwealth at the local and state levels, as well as the federal and international level within food production/ processing, governmental regulatory agencies, research institutions and non-profit agencies.

4. **Curriculum:** The certificate requires 12 semester hours with 6 hours required BIOL 344 (Food Microbiology), and CHEM 306 (Food Chemistry) and 6 hours of elective courses from the following list of courses: AGECE 360, AGECE 468, AGRI 101, AGRI 315, AGRI 493, AGRO 110, AGRO 311, AGRO 320, AMS 301, AMS 303, AMS 352, AMS 381, ANSC 140, ANSC 141, ANSC 340, BIOL 470, HMD 151, HMD 152, HMD 211, HMD 251, or a course approved by the advisor.

5. **Budget implications:** With the establishment of a recognized food cluster in Ogden College by hiring new faculty members in Agriculture, Biology, and Chemistry in 2012 as well as existing expertise in Agriculture and Architecture and Manufacturing Science, all required faculty expertise is currently available. Moreover, it was expected that the faculty in the food cluster would create courses in Food Chemistry and Food Microbiology to support student interest in Food Science. These courses are also electives in Chemistry and Biology and will serve as entry points for the Food Certificate. These courses will be offered annually as part of the regular faculty schedule. No additional resources are required.

6. **Proposed term for implementation:** Spring 2014

7. **Dates of prior committee approvals:**

Ogden College Dean’s Office n/a

Ogden College Curriculum Committee _____

Professional Education Council (if applicable) _____

General Education Committee (if applicable) _____

Undergraduate Curriculum Committee

University Senate

Proposal Date: 21 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Make Multiple Revisions to a Course
(Action Item)**

Contact Person: Michael Collyer, michael.collyer@wku.edu, 745-8765

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: BIOL 283
- 1.2 Course title: Introductory Biostatistics

2. Revise course title: NA

- 2.1 Current course title: NA
- 2.2 Proposed course title: NA
- 2.3 Proposed abbreviated title: NA
- 2.4 Rationale for revision of course title: NA

3. Revise course number:

- 3.1 Current course number: BIOL 283
- 3.2 Proposed course number: BIOL 382
- 3.3 Rationale for revision of course number: There are several reasons that warrant elevation to a 300-level course. First, the combination of the content taught and the evaluatory system used for student performance in the class is more indicative of an upper-division undergraduate course. Second, comparable introductory statistics courses in other WKU departments, accepted toward majors, start at the 300-level. With the exception of STAT 301 (a calculus-based statistics course), however, all other 300-level courses have less stringent MATH prerequisites than the current BIOL 283. Third, the majority (with some exceptions) of similar courses found at benchmark institutions are 300- or 400- level courses. Notable examples include at Florida Atlantic University (STA 3173, Introduction to Biostatistics), Indiana State University (BIO 485, Introduction to Biometry), and Middle Tennessee State University (Biol 4350, Biometry). Fourth, 300-level statistics courses at WKU are eligible to count towards an applied statistics minor at WKU, but 200-level courses are not eligible. For example, a Biology major wishing to pursue a statistics minor would have to evade a 200-level statistics course. Additionally, if the current BIOL 283 course were changed to BIOL 382, it might attract non-biology majors seeking a statistics minor. Fifth, the biology major requires 18 of the 36 semester hours in biology coursework at a 300-level or higher. Although the course topic is becoming increasingly important for biology majors (for example, the MCAT will begin testing students on biostatistics in 2015), the requirements of the major might currently preclude interested students from taking this course.

4. Revise course prerequisites/corequisites/special requirements:

- 4.1 Current prerequisites: BIOL 120-121, BIOL 122-123, and MATH 118

4.2 Proposed prerequisites: BIOL 120/121 and BIOL 122/123 with grades of "C" or higher or consent of instructor; MATH 117 (or equivalent or higher)

4.3 Rationale for revision of course prerequisites: Grades of "C" or higher are proposed as performance requirements for the Biology prerequisite series as a means of improving the chances of success for students pursuing a Major in Biology. These are the primary core courses that all Biology Majors students must take prior to enrolling in subsequent courses.

MATH 118 was a course that combined elements of MATH 116 (Algebra) and MATH 117 (Trigonometry). Currently, students must complete MATH 116 as a prerequisite for MATH 117. These two courses cover the same content as MATH 118. Therefore, a student who has completed MATH 117 has the same mathematics background as a student who has completed MATH 118, which is sufficient for this course.

4.4 Effect on completion of major/minor sequence: None

5. Revise course catalog listing:

5.1 Current course catalog listing: NA

5.2 Proposed course catalog listing: NA

5.3 Rationale for revision of course catalog listing: NA

6. Revise course credit hours:

6.1 Current course credit hours: 4

6.2 Proposed course credit hours: 3

6.3 Rationale for revision of course credit hours: The traditional format for this course, with 3 hours of lecture content and a 2-hour lab, isn't appropriate nor applicable. There are several reasons that warrant separation of lecture and laboratory components of the current BIOL 283 into separate courses (a new course – BIOL 383, Introductory Biostatistics Laboratory will be proposed at a later date.) First, this course has currently adopted a flipped design where students are expected to prepare for class prior to a given day and the lecture is spent in a computer classroom with students performing statistical applications. The lab time is no longer needed since hands-on teaching is already applied within the 3-hour lecture block each week. Second, the MCAT exam will start testing students on biostatistics in 2015, which might increase the demand for biostatistics courses. By separating lecture and lab components, the Department of Biology will be in a better position to accommodate larger course populations (especially if the demand for labs is not as great). Third, a 3-hour 300-level stats course is likely more attractive to students pursuing the Applied Statistics minor because this minor requires six hours of elective 300-level statistics courses, in addition to the required STAT 330 (Introduction to Statistical Software), among others, making the current merged laboratory component apparently redundant. Fourth, separation of lecture and lab is consistent with general program revisions for Biology majors, which require students to take a minimum of three laboratory experience courses and one science process course (the proposed BIOL 383 will be geared to satisfying either a laboratory experience or science process course in the revised program.)

7. Revise grade type:

7.1 Current grade type: NA

7.2 Proposed grade type: NA

7.3 Rationale for revision of grade type: NA

8. **Proposed term for implementation:** Fall 2014

9. **Dates of prior committee approvals:**

Department of Biology

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

January 24, 2014

Proposal Date: 21 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Make Multiple Revisions to a Course
(Action Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: BIOL 315
- 1.2 Course title: Ecology

2. Revise course title:

- 2.1 Current course title: NA
- 2.2 Proposed course title: NA
- 2.3 Proposed abbreviated title: NA
- 2.4 Rationale for revision of course title: NA

3. Revise course number:

- 3.1 Current course number: NA
- 3.2 Proposed course number: NA
- 3.3 Rationale for revision of course number: NA

4. Revise course prerequisites/corequisites/special requirements:

- 4.1 Current prerequisites: BIOL 222-223 or BIOL 224-225 or BIOL 226-227
- 4.2 Proposed prerequisites: BIOL 120/121 and BIOL 122/123 with grades of "C" or higher
- 4.3 Rationale for revision of course prerequisites: BIOL 120/121 and BIOL 122/123 are more appropriate as prerequisite courses since they most directly provide the foundation concepts needed for BIOL 315.

Grades of "C" or higher are proposed as performance requirements for the proposed prerequisite series as a means of improving the chances of success for students pursuing a Major in Biology. These are the primary core courses that all Biology Majors students must take prior to enrolling in subsequent courses.

- 4.4 Effect on completion of major/minor sequence: None

5. Revise course catalog listing:

- 5.1 Current course catalog listing: A study of the fundamental principles of ecology. Laboratory work includes research and computer techniques for analysis and synthesis. A field trip may be required. *Course fee*
- 5.2 Proposed course catalog listing: A study of the fundamental principles of ecology. *Course fee*
- 5.3 Rationale for revision of course catalog listing: The description of laboratory work needs removed because the lab component of this course is being deleted. We don't anticipate field trips will be a regular part of this course.

6. Revise course credit hours:

6.1 Current course credit hours: 4.5

6.2 Proposed course credit hours: 3

6.3 Rationale for revision of course credit hours: The lab component of this course is being removed, predicating the need to reduce credit hours to three. From this point forward, BIOL 315 will be a lecture-only course meeting for 3 contact hours per week. A separate, stand-alone Ecology Laboratory course will subsequently be developed at a later date.

7. Revise grade type:

7.1 Current grade type: NA

7.2 Proposed grade type: NA

7.3 Rationale for revision of grade type: NA

8. Proposed term for implementation: Fall 2014

9. Dates of prior committee approvals:

Department of Biology

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

November 22, 2013

Proposal Date: 21 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Make Multiple Revisions to a Course
(Action Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

- 1. Identification of course:**
 - 1.1 Current course prefix (subject area) and number: BIOL 327
 - 1.2 Course title: Genetics

- 2. Revise course title:**
 - 2.1 Current course title: NA
 - 2.2 Proposed course title: NA
 - 2.3 Proposed abbreviated title: NA
 - 2.4 Rationale for revision of course title: NA

- 3. Revise course number:**
 - 3.1 Current course number: NA
 - 3.2 Proposed course number: NA
 - 3.3 Rationale for revision of course number: NA

- 4. Revise course prerequisites/corequisites/special requirements:**
 - 4.1 Current prerequisites: BIOL 120-121 and BIOL 122-123
 - 4.2 Proposed prerequisites: BIOL 120/121 and BIOL 122/123 with grades of "C" or higher
 - 4.3 Rationale for revision of course prerequisites: Grades of "C" or higher are proposed as performance requirements for the current prerequisite series as a means of improving the chances of success for students pursuing a Major in Biology. These are the primary core courses that all Biology Majors students must take prior to enrolling in subsequent courses.
 - 4.4 Effect on completion of major/minor sequence: None

- 5. Revise course catalog listing:**
 - 5.1 Current course catalog listing: A study of the fundamental principles of heredity in eukaryotic organisms. *Course fee*
 - 5.2 Proposed course catalog listing: A study of the fundamental principles of heredity in eukaryotic organisms.
 - 5.3 Rationale for revision of course catalog listing: With the shifting of the lab component of this course to a new, stand-alone lab course, the course fee is no longer necessary.

- 6. Revise course credit hours:**
 - 6.1 Current course credit hours: 4
 - 6.2 Proposed course credit hours: 3
 - 6.3 Rationale for revision of course credit hours: The lab component of this course is being removed, predicating the need to reduce credit hours to three. From this point forward,

BIOL 327 will be a lecture-only course meeting for 3 contact hours per week. A separate, stand-alone Genetics Laboratory is being simultaneously proposed as a new course.

- 7. **Revise grade type:**
 - 7.1 Current grade type: NA
 - 7.2 Proposed grade type: NA
 - 7.3 Rationale for revision of grade type: NA

8. **Proposed term for implementation:** Fall 2014

9. **Dates of prior committee approvals:**

Department of Biology

Ogden College Curriculum Committee

Professional Education Council

Undergraduate Curriculum Committee

University Senate

November 22, 2013

Proposal Date: 21 November 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Make Multiple Revisions to a Course
(Action Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: BIOL 430
- 1.2 Course title: Evolution

2. Revise course title:

- 2.1 Current course title: NA
- 2.2 Proposed course title: NA
- 2.3 Proposed abbreviated title: NA
- 2.4 Rationale for revision of course title: NA

3. Revise course number:

- 3.1 Current course number: BIOL 430
- 3.2 Proposed course number: BIOL 316
- 3.3 Rationale for revision of course number: For several years BIOL 430 was taught as a capstone course with an enrollment typically small enough to permit a dynamic class environment that regularly incorporated discussions during lecture. The evaluatory system employed for this course once included multiple papers and extensive, essay-style exams. With a sharp increase in the number of Biology majors that occurred last decade, demand for this course likewise increased yet this has predicated a need for how students are evaluated. The content covered has remained the same through the years.

4. Revise course prerequisites/corequisites/special requirements:

- 4.1 Current prerequisites: BIOL 319 and BIOL 322 or BIOL 327
- 4.2 Proposed prerequisites: BIOL 120/121 and BIOL 122/123 with grades of "C" or higher
- 4.3 Rationale for revision of course prerequisites: BIOL 120/121 and BIOL 122/123 are more appropriate as prerequisite courses since they most directly provide the foundation concepts needed for BIOL 316. Additionally, all Biology majors must take either this course or BIOL 315. The latter course is being revised with the same freshman-level, majors Biology sequence as prerequisites. The proposed prerequisite series would be identical for the two courses.

Grades of "C" or higher are proposed as performance requirements for the proposed prerequisite series as a means of improving the chances of success for students pursuing a Major in Biology. These are the primary core courses that all Biology Majors students must take prior to enrolling in subsequent courses.

- 4.4 Effect on completion of major/minor sequence: None

5. Revise course catalog listing:

- 5.1 Current course catalog listing: NA

- 5.2 Proposed course catalog listing: NA
- 5.3 Rationale for revision of course catalog listing: NA

6. Revise course credit hours:

- 6.1 Current course credit hours: NA
- 6.2 Proposed course credit hours: NA
- 6.3 Rationale for revision of course credit hours: NA

7. Revise grade type:

- 7.1 Current grade type: NA
- 7.2 Proposed grade type: NA
- 7.3 Rationale for revision of grade type: NA

8. Proposed term for implementation: Fall 2014

9. Dates of prior committee approvals:

Department of Biology

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

November 22, 2013

Proposal Date: 1 December 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Create a New Course
(Action Item)**

Contact Person: Jarrett Johnson, jarrett.johnson@wku.edu, 745-6032

1. Identification of proposed course:

- 1.1 Course prefix (subject area) and number: BIOL 329
- 1.2 Course title: Genetics Laboratory
- 1.3 Abbreviated course title: Genetics Laboratory
- 1.4 Credit hours: 1
- 1.5 Grade type: Standard letter grade
- 1.6 Corequisites: BIOL 319 or BIOL 327
- 1.7 Course description: A laboratory-based study of genetics, focusing on heredity, molecular and developmental genetics, genomics, and population genetics. Modern laboratory techniques are emphasized. Course fee

2. Rationale:

- 2.1 Reason for developing the proposed course: This course already exists as the embedded laboratory component in BIOL 327 (Genetics). Technically, this is not a new course proposal but rather a separation of laboratory from the lecture component. There is a parallel proposal that is removing the laboratory from the lecture. Hence, the lecture and laboratory components will be stand-alone courses.
The rationale for decoupling this lab course from the BIOL327 lecture is to increase flexibility in at least three ways. First, students that need to retake Genetics to improve their grade would not need to take both the lecture and lab, if they performed poorly only in one area. Second, the lab techniques that are emphasized and taught align equally well with the stand-alone lab course BIOL 322 (Introduction to Cellular and Molecular Biology Lab). The topics taught in the two lab courses are distinct, but each emphasizes many of the same lab practices and techniques. Currently, BIOL 322 is a corequisite of BIOL 319 (Introduction to Cellular and Molecular Biology). A stand-alone Genetics Lab can serve as an appropriate corequisite of BIOL 319, and similarly, BIOL 322 is similarly an appropriate corequisite for a lecture-only BIOL 327. Third, the BIOL327 lecture would be free to exceed 72 students (the current maximum due to limited lab space), and while we have not recently had much demand to increase the size of the lecture, this may occur in the future. Please note that there are separate proposal modifying the corequisites for BIOL 319 and BIOL 322.
- 2.2 Projected enrollment in the proposed course: 18 per lab section, with 3–4 lab sections offered each semester. This is identical to how we have managed enrollment in the lab component of Genetics for several years. By decoupling the

- lab from lecture we anticipate that enrollment may decrease slightly, yet most students will still enroll in the lab during the semester they take 327.
- 2.3 Relationship of the proposed course to courses now offered by the department: The content of the proposed course would overlap greatly with the content of BIOL327 but would differ markedly since BIOL 329 is a hands-on lab. There are no other Genetics lab courses taught by the Biology Department.
- 2.4 Relationship of the proposed course to courses offered in other departments: Biology is only department across WKU that teach genetics courses.
- 2.5 Relationship of the proposed course to courses offered in other institutions: Genetics course lacking a lab component is very common. Among WKU Benchmark institutions, only five universities (Ball State, Central Michigan, James Madison, Northern Illinois, and Southern Mississippi) have the lab combined with the lecture as one integrated course. Four benchmarks (East Carolina, Florida Atlantic, Towson, and South Alabama) lack a lab altogether. The remaining nine benchmarks (Appalachian State, Bowling Green State, East Tennessee State, Illinois State, Indiana State, Middle Tennessee State, Ohio, North Carolina-Charlotte, and North Carolina-Greensboro) have a separate, stand-alone lab course.

3. Discussion of proposed course:

3.1 Schedule type: B

3.2 Learning outcomes:

Upon completion of this course, students will be able to:

- Perform the necessary calculations to prepare aqueous solutions from dry or liquid raw materials
- Explain the connection between genotypes and phenotypes, and the principles of inheritance
- Understand the importance of polymerase chain reaction (PCR) in molecular genetics and implement the experimental protocols for performing PCR
- Ascertain genotypes from size-separated DNA fragments
- Use the Hardy-Weinberg Equilibrium equation to determine if a gene is evolving
- Describe the benefits of model organisms and explain the life cycle of the fruit fly
- Explain a variety of recombinant genetic strategies for understanding gene expression patterns
- Understand the importance of regulatory regions of DNA in controlling the expression of genes

3.3 Content outline:

Unit 1: Lab introduction

Lab 1 – Lab safety, pipetting, and making solutions

Unit 2: Investigation of human gene TAS2R38

Lab 2 – Measuring student phenotypes and extracting DNA

Lab 3 – Performing polymerase chain reaction and using bioinformatics tools

Lab 4 – Using agarose gel electrophoresis and restriction digests to detect genotypes

Lab 5 – Evaluation of class data using population genetic techniques

Unit 3: Introduction to the fruit fly

Lab 6 – Observing adult mutations and practicing larval dissection

Lab 7 – Making polytene chromosome squashes to observe chromatin variation

Lab 8 – Using GAL4 UAS enhancer traps to study gene expression in the wing disc

Unit 4: Using E. coli

Lab 9 – Performing pGLO transformation to understand gene expression

Lab 10 – Extracting plasmid DNA from transformed cells

- 3.4 Student expectations and requirements: Student performance will be based on participation, laboratory worksheets, lab notebooks, quizzes, and exams.
- 3.5 Tentative texts and course materials: There is no laboratory manual to purchase. Handouts describing each of the laboratory exercises will be uploaded to Blackboard as the semester progresses.

4. Resources:

- 4.1 Library resources: Adequate.
- 4.2 Computer resources: Not required for this course.

5. Budget implications:

- 5.1 Proposed method of staffing: Dr. Johnson and Dr. Ajay Srivastava have been teaching the Genetics lab component currently embedded in BIOL 327, in addition to the lecture, since they were hired in 2010. They will continue to contribute to the teaching of the new laboratory course.
- 5.2 Special equipment needed: None
- 5.3 Expendable materials needed: None
- 5.4 Laboratory materials needed: None

6. Proposed term for implementation: Fall 2014

7. Dates of prior committee approvals

Department of Biology

November 22, 2013

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

Attachment: Bibliography, Library Resources Form, Course Inventory Form

Proposal Date: 08/31/2013

Ogden College of Science and Engineering
Department of Biology
Proposal to Create a New Course
(Action Item)

Contact Person: Cangliang Shen, cangliang.shen@wku.edu, 745-4440

1. Identification of proposed course:

- 1.1 Course prefix (subject area) and number: BIOL 336
- 1.2 Course title: Food Microbiology
- 1.3 Abbreviated course title: Food Microbiology
- 1.4 Credit hours: 3
- 1.5 Grade type: Standard letter grade
- 1.6 Prerequisites: BIOL 207/208, BIOL 226/227, or consent of instructor
- 1.7 Course description: A comprehensive understanding of food microbiology, including foodborne pathogenic bacteria, beneficial bacteria, microbial impact on food processing, control of microorganisms in food, and food regulations. This course may include off-campus travels to food processing companies or government laboratories.

2. Rationale:

- 2.1 Reason for developing the proposed course: This course is designed to allow students, especially those in biology, agriculture, chemistry, and public health disciplines, to understand the interaction between microorganisms and food processing. This course is designed as part of the Food Science Certification with the potential of developing a food science minor and/or major. Students involved in the food science certification program are required to take this class as one of their core classes. Non-food science certification program students would also benefit from this class for development of a career in microbiology, for example working in CDC or USDA-ARS as a microbiologist.
- 2.2 Projected enrollment in the proposed course: 20-24 students expected based on the current enrollment of BIOL 226/227 Microbial Biology and Diversity.
- 2.3 Relationship of the proposed course to courses now offered by the department: Current microbiology courses of BIOL 226/227 or BIOL 207/208 provide the prerequisite microbial knowledge for students enrolling into this class. This class will focus on the interaction between microorganisms related to food processing, rather than presenting basic microbiology information.
- 2.4 Relationship of the proposed course to courses offered in other departments: This course complements one new course for the newly-proposed Food Science Certification Program (CHEM 307: Food Chemistry). There is no overlap between these two classes.

- 2.5 Relationship of the proposed course to courses offered in other institutions: Only one benchmark institution, University of Southern Mississippi, offers a Food Microbiology Course (Bio 488).

3. Discussion of proposed course:

3.1 Schedule type: L

3.2 Learning outcomes: Understanding of the role of microorganisms in food processing and preservation, focusing namely on:

- Relation of microorganisms to food spoilage
- Foodborne illness and intoxication
- Food processing and quality control
- Role of microorganisms in health promotion
- Federal food processing regulations.

3.3 Content outline:

- 1) The Trajectory of Food Microbiology
- 2) Microbial Growth, Survival, and Death in Foods
- 3) Spores and Their Significance
- 4) Detection and Enumeration of Microbes in Food
- 5) Rapid and Automated Microbial Methods
- 6) Indicator Microorganisms and Microbiological Criteria
- 7) Foodborne Pathogens
- 8) Lactic Acid Bacteria and their Fermentative Products
- 9) Spoilage Organisms
- 10) Molds
- 11) Viruses and Prions
- 12) Antimicrobial Chemicals
- 13) Biological Based Preservation and Probiotic Bacteria
- 14) Physical Methods of Food Preservation
- 15) Industrial Strategies of Ensuring Safe Food

3.4 Student expectations and requirements: Student performance will be based on lecture exams and oral presentation.

3.5 Tentative texts and course materials: Required text book: Food Microbiology; An Introduction; Thomas J. Montville, Karl R. Matthews, and Kalmia E. Knile. 2012. 3rd ed. ASM Press, Washington DC. ISBN 978-1-55581-636-0 (Hardcover); ISBN 978-1-55581-720-6 (e-book). Additional materials will be provided in class.

4. Resources:

4.1 Library resources: Adequate. Required text book "Food Microbiology; An Introduction; Thomas J. Montville, Karl R. Matthews, and Kalmia E. Knile. 2012. 3rd edition" is available in WKU library.

4.2 Computer resources: No specific computer resources are required for this course. Required text book "Food Microbiology; An Introduction; Thomas J. Montville, Karl R. Matthews, and Kalmia E. Knile. 2012. 3rd ed." e-book is available to be purchased through ASM Press.

5. Budget implications:

- 5.1 Proposed method of staffing: Dr. Cangliang Shen was hired in 2012 in the Department of Biology as a Food Microbiologist. This course will be a part of his regular teaching rotation and will be a part of the Food Science Certified Program curriculum in Ogden College.
- 5.2 Special equipment needed: None
- 5.3 Expendable materials needed: None
- 5.4 Laboratory materials needed: None

6. Proposed term for implementation: Fall 2014

7. Dates of prior committee approvals

Department of Biology

January 24, 2014

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

Attachment: Bibliography, Library Resources Form, Course Inventory Form

Proposal Date: 14 December 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise A Program
(Action Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

1. Identification of program:

- 1.1 Current program reference number: 525
- 1.2 Current program title: Major in Biology
- 1.3 Credit hours: 48

2. Identification of the proposed program changes:

- Removal of BIOL 322 (Introduction to Cellular and Molecular Biology Lab) as the sole corequisite of BIOL 319 (Introduction to Cellular and Molecular Biology)
- Partitioning the integrated lab component of BIOL 327 (Genetics) into a stand-alone lab course, BIOL 329 (Genetics Lab)
- BIOL 322 or BIOL 329 can be taken as the corequisite lab course in combination with either BIOL 319 or BIOL 327
- Removal of the integrated lab component of BIOL 315 (Ecology), thereby reducing the credit hours for this course from 4.5 to 3
- Changing BIOL 430 (Evolution) to BIOL 316 to better reflect the evaluatory system used in this course
- Require a minimum of five upper division laboratory experience courses

3. Detailed program description:

Current program	Proposed program
<u>Required coursework (8 hrs)</u> BIOL 120/121: Biological Concepts: Cells, Metabolism, and Genetics (4) BIOL 122/123: Biological Concepts: Evolution, Diversity & Ecology (4)	<u>Required coursework (8 hrs)</u> BIOL 120/121: Biological Concepts: Cells, Metabolism, and Genetics (4) BIOL 122/123: Biological Concepts: Evolution, Diversity & Ecology (4)
<u>Restricted elective coursework (11 or 12.5 hrs)</u> BIOL 222/223: Plant Biology and Diversity (4) or BIOL 224/225: Animal Biology and Diversity (4) or BIOL 226/227: Microbial Biology and Diversity (4)	<u>Restricted elective coursework (11 hrs)</u> BIOL 222/223: Plant Biology and Diversity (4) or BIOL 224/225: Animal Biology and Diversity (4) or BIOL 226/227: Microbial Biology and Diversity (4)
BIOL 319/322: Introduction to Cellular and Molecular Biology (4) or BIOL 327: Genetics (4)	BIOL 319: Introduction to Cellular and Molecular Biology (3) or BIOL 327: Genetics (3)
BIOL 315: Ecology (4.5)	BIOL 322: Introduction to Cellular and Molecular

<p>or BIOL 430: Evolution (3)</p> <p><u>Elective coursework</u></p> <ul style="list-style-type: none"> In consultation with their advisor, students select majors-level coursework to obtain a minimum 48 credits total, provided that at least 24 hours total are upper division courses. <p><u>Supporting coursework</u></p> <ul style="list-style-type: none"> MATH 116 and 117 or MATH 118 or higher PHYS 231/232 or PHYS 255/256 CHEM 120/121, and Two courses from the following list: AGRO 350 and AGRO 452 or AGRO 454 or AGRO 455/456 or AGRO 457/458, BIOL 283, CHEM 222/223, CHEM 314 or CHEM 340/341, CHEM 330, CIS 243, CIS 226 or CS 226 or CS 146, GEOG 316, GEOG 317, GEOG 328, GEOG 417, MATH 136, MATH 137, MATH 142, MATH 305, MATH 307, PHYS 332/233 or PHYS 265/266, SOCL 302. Students may count up to 6 credit hours of a combination of BIOL 369 and/or 399, and up to 4 credit hours of BIOL 485 toward this major. 	<p>Biology Lab (1) or BIOL 329: Genetics Lab (1)</p> <p>BIOL 315: Ecology (3) or BIOL 316: Evolution (3)</p> <p><u>Laboratory experience courses (choose five)</u> BIOL 312, BIOL 321, BIOL 322, BIOL 324, BIOL 325, BIOL 326, BIOL 328, BIOL 329, BIOL 331, BIOL 348, BIOL 350, BIOL 400, BIOL 404, BIOL 405, BIOL 412, BIOL 447, BIOL 450, BIOL 456, BIOL 457, BIOL 458, BIOL 460, BIOL 470, BIOL 472, BIOL 485, BIOL 496, BIOL 497</p> <p><u>Elective coursework</u></p> <ul style="list-style-type: none"> In consultation with their advisor, students select majors-level coursework to obtain a minimum 48 credits total, provided that at least 24 hours total are upper division courses. <p><u>Supporting coursework</u></p> <ul style="list-style-type: none"> MATH 116 and 117 or MATH 118 or higher PHYS 231/232 or PHYS 255/256 CHEM 120/121, and Two courses from the following list: AGRO 350 and AGRO 452 or AGRO 454 or AGRO 455/456 or AGRO 457/458, BIOL 283, CHEM 222/223, CHEM 314 or CHEM 340/341, CHEM 330, CIS 243, CIS 226 or CS 226 or CS 146, GEOG 316, GEOG 317, GEOG 328, GEOG 417, MATH 136, MATH 137, MATH 142, MATH 305, MATH 307, PHYS 332/233 or PHYS 265/266, SOCL 302. Students may count up to 6 credit hours of a combination of BIOL 369 and/or 399, and up to 4 credit hours of BIOL 485 toward this major.
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4. Rationale for the proposed program change:

- The addition of BIOL 329 (Genetics Laboratory) as a corequisite alternative to BIOL 322 (Introduction to Molecular and Cell Biology Laboratory) for both BIOL 319 (Introduction to Cellular and Molecular Biology) or BIOL 327 (Genetics) reflects the philosophical similarities in how the two lab courses are taught. Both courses emphasize the development of good lab practices. The integrated lab component of BIOL 327 is being removed, predicating the need to reduce credit hours to three.
- The integrated lab component of BIOL 315 (Ecology) is being removed, predicating the need to reduce credit hours to three.
- BIOL 430 (Evolution) is being reduced to a newly-proposed course number (BIOL 316) to reflect a modest change in the evaluatory system employed for this course that has coincided with an increase in demand and enrollment.
- A minimum of five, upper-division laboratory experiences are proposed as required, emphasizing the importance of developing solid benchtop skills and good laboratory practices. Learning the

science of Biology requires an integration of laboratory skills/practices in addition to concepts taught mainly through lecture-based coursework.

5. Proposed term for implementation: Fall 2014

6. Dates of prior committee approvals:

Department of Biology

Ogden College Curriculum Committee

Professional Education Council

Undergraduate Curriculum Committee

University Senate

Proposal Date: 14 December 2013

**Ogden College of Science and Engineering
Department of Biology
Proposal to Revise A Program
(Action Item)**

Contact Person: Scott Grubbs, scott.grubbs@wku.edu, 270 745-5048

1. Identification of program:

- 1.1 Current program reference number: 617
- 1.2 Current program title: Major in Biology
- 1.3 Credit hours: 36

2. Identification of the proposed program changes:

- Removal of BIOL 322 (Introduction to Cellular and Molecular Biology Lab) as the sole corequisite of BIOL 319 (Introduction to Cellular and Molecular Biology)
- Partitioning the integrated lab component of BIOL 327 (Genetics) into a stand-alone lab course, BIOL 329 (Genetics Lab)
- BIOL 322 or BIOL 329 can be taken as the corequisite lab course in combination with either BIOL 319 or BIOL 327
- Removal of the integrated lab component of BIOL 315 (Ecology), thereby reducing the credit hours for this course from 4.5 to 3
- Changing BIOL 430 (Evolution) to BIOL 316 to better reflect the evaluatory system used in this course
- Require a minimum of three upper division laboratory experience courses

3. Detailed program description:

Current program	Proposed program
<u>Required coursework (8 hrs)</u> BIOL 120/121: Biological Concepts: Cells, Metabolism, and Genetics (4) BIOL 122/123: Biological Concepts: Evolution, Diversity & Ecology (4)	<u>Required coursework (8 hrs)</u> BIOL 120/121: Biological Concepts: Cells, Metabolism, and Genetics (4) BIOL 122/123: Biological Concepts: Evolution, Diversity & Ecology (4)
<u>Restricted elective coursework (11 or 12.5 hrs)</u> BIOL 222/223: Plant Biology and Diversity (4) or BIOL 224/225: Animal Biology and Diversity (4) or BIOL 226/227: Microbial Biology and Diversity (4)	<u>Restricted elective coursework (11 hrs)</u> BIOL 222/223: Plant Biology and Diversity (4) or BIOL 224/225: Animal Biology and Diversity (4) or BIOL 226/227: Microbial Biology and Diversity (4)
BIOL 319/322: Introduction to Cellular and Molecular Biology (4) or BIOL 327: Genetics (4)	BIOL 319: Introduction to Cellular and Molecular Biology (3) or BIOL 327: Genetics (3)
BIOL 315: Ecology (4.5)	BIOL 322: Introduction to Cellular and Molecular

<p>or BIOL 430: Evolution (3)</p> <p><u>Elective coursework</u></p> <ul style="list-style-type: none"> In consultation with their advisor, students select majors-level coursework to obtain a minimum 36 credits total, provided that at least 18 hours total are upper division courses. <p><u>Supporting coursework</u></p> <ul style="list-style-type: none"> MATH 116 and 117 or MATH 118 or higher PHYS 231/232 or PHYS 255/256 CHEM 120/121, and Two courses from the following list: AGRO 350 and AGRO 452 or AGRO 454 or AGRO 455/456 or AGRO 457/458, BIOL 283, CHEM 222/223, CHEM 314 or CHEM 340/341, CHEM 330, CIS 243, CIS 226 or CS 226 or CS 146, GEOG 316, GEOG 317, GEOG 328, GEOG 417, MATH 136, MATH 137, MATH 142, MATH 305, MATH 307, PHYS 332/233 or PHYS 265/266, SOCL 302. Students may count up to 3 credit hours of a combination of BIOL 369 and/or 399, and up to 4 credit hours of BIOL 485 toward this major. 	<p>Biology Lab (1) or BIOL 329: Genetics Lab (1)</p> <p>BIOL 315: Ecology (3) or BIOL 316: Evolution (3)</p> <p><u>Laboratory experience courses (choose three)</u> BIOL 312, BIOL 321, BIOL 322, BIOL 324, BIOL 325, BIOL 326, BIOL 328, BIOL 329, BIOL 331, BIOL 348, BIOL 350, BIOL 400, BIOL 404, BIOL 405, BIOL 412, BIOL 447, BIOL 450, BIOL 456, BIOL 457, BIOL 458, BIOL 460, BIOL 470, BIOL 472, BIOL 485, BIOL 496, BIOL 497</p> <p><u>Elective coursework</u></p> <ul style="list-style-type: none"> In consultation with their advisor, students select majors-level coursework to obtain a minimum 36 credits total, provided that at least 18 hours total are upper division courses. <p><u>Supporting coursework</u></p> <ul style="list-style-type: none"> MATH 116 and 117 or MATH 118 or higher PHYS 231/232 or PHYS 255/256 CHEM 120/121, and Two courses from the following list: AGRO 350 and AGRO 452 or AGRO 454 or AGRO 455/456 or AGRO 457/458, BIOL 283, CHEM 222/223, CHEM 314 or CHEM 340/341, CHEM 330, CIS 243, CIS 226 or CS 226 or CS 146, GEOG 316, GEOG 317, GEOG 328, GEOG 417, MATH 136, MATH 137, MATH 142, MATH 305, MATH 307, PHYS 332/233 or PHYS 265/266, SOCL 302. Students may count up to 3 credit hours of a combination of BIOL 369 and/or 399, and up to 4 credit hours of BIOL 485 toward this major.
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4. Rationale for the proposed program change:

- The addition of BIOL 329 (Genetics Laboratory) as a corequisite alternative to BIOL 322 (Introduction to Molecular and Cell Biology Laboratory) for both BIOL 319 (Introduction to Cellular and Molecular Biology) or BIOL 327 (Genetics) reflects the philosophical similarities in how the two lab courses are taught. Both courses emphasize the development of good lab practices. The integrated lab component of BIOL 327 is being removed, predicating the need to reduce credit hours to three.
- The integrated lab component of BIOL 315 (Ecology) is being removed, predicating the need to reduce credit hours to three.
- BIOL 430 (Evolution) is being reduced to a newly-proposed course number (BIOL 316) to reflect a modest change in the evaluatory system employed for this course that has coincided with an increase in demand and enrollment.
- A minimum of three, upper-division laboratory experiences are proposed as required, emphasizing the importance of developing solid benchtop skills and good laboratory practices.

Learning the science of Biology requires an integration of laboratory skills/practices in addition to concepts taught mainly through lecture-based coursework.

5. **Proposed term for implementation:** Fall 2014

6. **Dates of prior committee approvals:**

Department of Biology

Ogden College Curriculum Committee

Professional Education Council

Undergraduate Curriculum Committee

University Senate

Proposal Date: 12/13/2013

**Ogden College of Science and Engineering
Department of Geography and Geology
Proposal to Make Multiple Revisions to a Course
(Action Item)**

Contact Person: Leslie North, leslie.north@wku.edu, 5-5982

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: GEOG 210
- 1.2 Course title: Human Ecology

2. Revise course title:

- 2.1 Current course title: Human Ecology
- 2.2 Proposed course title: Environment and Ecological Policy
- 2.3 Proposed abbreviated title: Environment Ecological Policy
- 2.4 Rationale for revision of course title: The proposed course title better reflects the course content, recognizes more specifically the policy implications, and distinguishes it from courses taught in the Biology program.

3. Revise course catalog listing:

- 3.1 Current course catalog listing: A course designed to examine the human elements as a functional variable within an ecosystem through the study of culture groups and mutual interrelationships with their immediate natural and social environment.
- 3.2 Proposed course catalog listing: A survey of the geography, history, and current conditions of environment and ecological policy development and decision-making, particularly in the U.S., with an examination of the human element as a functional variable within the natural environment.
- 3.3 Rationale for revision of course catalog listing: The title change and revised catalog listing aim to explain more correctly the nature and content of the course and its sequence in the Geography program. The course serves as a prerequisite for GEOG 487 Environmental Law and Policy and provides a basic knowledge of environmental and ecological management and the role humans play in these processes that is important for other courses in the program.

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department of Geography and Geology _____ 12/13/2013

Ogden College Curriculum Committee _____

University Curriculum Committee _____

University Senate _____

Proposal Date: 12/13/2013

**Ogden College of Science and Engineering
Department of Geography and Geology
Proposal to Make Multiple Revisions to a Course
(Action Item)**

Contact Person: Leslie North, leslie.north@wku.edu, 5-5982

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: GEOG 280
- 1.2 Course title: Introduction to Environmental Science

2. Revise course title:

- 2.1 Current course title: Introduction to Environmental Science
- 2.2 Proposed course title: Environmental Science and Sustainability
- 2.3 Proposed abbreviated title: Environment Sci Sustainability
- 2.4 Rationale for revision of course title: This title more accurately describes the content and distinguishes the course from other environmental science classes being taught at the university.

3. Revise course catalog listing:

- 3.1 Current course catalog listing: An introductory course devoted to the study of environmental issues. A general understanding of application of science to solution of contemporary environmental problems. Equivalent to AGRI 280, BIOL 280, ENV 280, and PH 280.
- 3.2 Proposed course catalog listing: A general understanding of geoscience applications in solving contemporary environmental problems. Lab component provides practical experiences associated with the theories outlined in the course content. Course fee required.
- 3.3 Rationale for revision of course catalog listing: This course listing more accurately describes the content and distinguishes the course from other environmental science classes being taught at WKU.

4. Revise course credit hours:

- 4.1 Current course credit hours: 3
- 4.2 Proposed course credit hours: 4
- 4.3 Rationale for revision of course credit hours: Course content and objectives will

remain the same. However, due to technological advances and changes in the field of sustainability, the issues have become more complex and require more hands-on time with the students. Therefore a lab component has been added to allow hands-on activities outside of the traditional lecture experience that we have provided for our students. This change is warranted based on feedback that we have received from our graduates and other experts in the field. A four-credit-hour course reflects other environmental studies programs at similar institutions.

5 Proposed term for implementation: Fall 2014

6. Dates of prior committee approvals:

Department of Geography and Geology

12/13/2013

Ogden College Curriculum Committee

WKU Colonnade Committee

Undergraduate Curriculum Committee

University Senate

**Ogden College of Science and Engineering
Department of Geography and Geology
Proposal to Make Multiple Course Revisions
(Action Item)**

Contact Person: Leslie North, leslie.north@wku.edu, 5-5982

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: GEOG 300
- 1.2 Course title: Geographic Research Methods

2. Revise course title:

- 2.1 Current course title: Geographic Research Methods
- 2.2 Proposed course title: Writing in the Geosciences
- 2.3 Proposed abbreviated title: Writing in the Geosciences
- 2.4 Rationale for revision of course title: The revised title more closely aligns with the goal of the WKU Colonnade program and Geography program revisions. The Department will propose this course as equivalent to ENG 300 in the Foundations (Writing in the Disciplines) category of the Colonnade program. It is a required course for Geography, Meteorology, and GIS majors.

3. Revise course prerequisites:

- 3.1 Current prerequisites: GEOG 100 or GEOL 100 or GEOL 111, and GEOG 110; or Instructor's permission.
- 3.2 Proposed prerequisites: GEOG 103 or GEOL 103, and GEOG 110
- 3.3 Rationale for revision of course prerequisites: The course number of GEOG/GEOL 100 has changed to GEOG/GEOL 103, GEOL 111 is no longer an appropriate prerequisite, and instructor's permission is no longer required to take this course as it is being proposed as an equivalent to ENG 300 Writing in the Disciplines for the Colonnade program.
- 3.4 Effect on completion of major/minor sequence: None

4. Revise course catalog listing:

- 4.1 Current course catalog listing: An examination of the field of geography as an academic discipline. The course content will include a review of various philosophies of the field as well as geographic research, analysis, and writing application.
- 4.2 Proposed course catalog listing: Students conduct investigations into writing, reading, and research conventions in the geosciences and receive advanced instruction in planning, drafting, arranging, revising, and editing geoscience-specific essays and research projects.
- 4.3 Rationale for revision of course catalog listing: This course listing more accurately describes the goal of the course and harmonizes it with the Colonnade goals established for writing-in-the-discipline courses.

5. Proposed term for implementation: Fall 2014

6. Dates of prior committee approvals:

Department of Geography and Geology _____ 12/13/2013

Ogden College Curriculum Committee _____

University Curriculum Committee _____

University Senate _____

**Ogden College of Science and Engineering
Department of Geography and Geology
Proposal to Make Multiple Revisions to a Course
(Action Item)**

Contact Person: Leslie North, leslie.north@wku.edu, 5-4555

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: GEOG 452
- 1.2 Course title: Field Studies in Geography

2. Revise course title:

- 2.1 Current course title: Field Studies in Geography
- 2.2 Proposed course title: Geoscience Field Experiences
- 2.3 Proposed abbreviated title: Geoscience Field Experiences
- 2.4 Rationale for revision of course title: The revised title better reflects the diverse nature of the course experiences, with geography, meteorology, GIS, and geology students participating in a variety of field-based experiences, such as Study Away, Study Abroad, Field Camp, and supervised research experiences in local or international settings.

3. Revise course prerequisites:

- 3.1 Current prerequisites: Permission of the Instructor
- 3.2 Proposed prerequisites: Junior Standing OR Instructor's Permission
- 3.3 Rationale for revision of course prerequisites: Students ideally should have completed all foundational courses in the geography, geology, meteorology or GIS major before enrolling in this course. Non-geoscience majors require permission of the instructor.
- 3.4 Effect on completion of major/minor sequence: None

4. Revise course catalog listing:

- 4.1 Current course catalog listing: Field methods are emphasized in problems, which are assigned. Field work is required.
- 4.2 Proposed course catalog listing: Field techniques and research experiences are emphasized in a variety of settings, including locally, at Study Away and Study Abroad destinations, field camps, and other national or international settings. A course fee is required.
- 4.3 Rationale for revision of course catalog listing: The revised listing better explains the nature of the course and allows for a number of local, national, and international field research experiences.

5. Revise course credit hours:

- 5.1 Current course credit hours: 3
- 5.2 Proposed course credit hours: 3-6
- 5.3 Rationale for revision of course credit hours: The course can be repeated for credit when the locale or field experience destination changes, or the course can be taken for 6 hours in one semester when appropriate, such as a summer field camp.

6. **Proposed term for implementation:** 201430

7. **Dates of prior committee approvals:**

Department of Geography and Geology

_____12/13/2013_____

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

Proposal Date: 12/13/2013

**Ogden College of Science and Engineering
Department of Geography and Geology
Proposal to Make Multiple Course Revisions
(Action Item)**

Contact Person: Leslie North, leslie.north@wku.edu, 5-5982

1. Identification of proposed course:

- 1.1 Course prefix (subject area) and number: GEOG 495
- 1.2 Course title: Supervised Practicum
- 1.3 Credit Hours: 3 hours

2. Revise course title:

- 2.1 Current course title: Supervised Practicum
- 2.2 Proposed course title: **Research Practicum or Internship**
- 2.3 Proposed abbreviated title: **Research Practicum or Intern**
- 2.4 Rationale for revision of course title: The new title is clearer so that students understand that the Practicum requirement can be met through multiple means, such as participating in guided research or an internship. The broadening of the ways that students can meet this requirement will help to encourage students to participate in both research and internships.

3. Revise course catalog listing:

- 3.1 Current course catalog listing: Supervised experience in a cooperating government, community, or private concern. May be repeated for a maximum of 12 credit hours. A maximum of 9 credit hours of practicum can be earned in minor programs.
- 3.2 Proposed course catalog listing: Supervised research or internship with faculty, government, community, or private concerns. May be repeated for a maximum of 12 credit hours in the major, with a maximum of 6 credit hours permitted in minor programs.
- 3.3 Rationale for revision of course catalog listing: The revision more accurately represents the course options and provides for collaborative research opportunities with faculty. The maximum permitted hours in a minor program are reduced from 9 to 6 to require a broader exposure to the various geoscience sub-disciplines.

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department of Geography and Geology

12/13/2013

Ogden College Curriculum Committee

University Curriculum Committee

**Ogden College of Science and Engineering
Department of Geography and Geology
Proposal to Make Multiple Revisions to a Course
(Action Item)**

Contact Person: Aaron Celestian, aaron.celestian@wku.edu, 5-4555

- 1. Identification of course:**
 - 1.1 Current course prefix (subject area) and number: GEOL 432
 - 1.2 Course title: Crystallography

- 2. Revise course title:**
 - 2.1 Current course title: Crystallography
 - 2.2 Proposed course title: **Diffraction and Spectroscopy**
 - 2.3 Proposed abbreviated title: **Diffraction and Spectroscopy**
 - 2.4 Rationale for revision of course title: This title change more closely reflects the course content and content delivery. Course catalog description will be modified to account for the change in title

- 3. Revise course prerequisites:**
 - 3.1 Current prerequisite: GEOL 330 Or CHEM 222 Or PHYS 266
 - 3.2 Proposed prerequisites: **GEOL 325 OR GEOL 330 OR CHEM 222 OR PHYS 266**
 - 3.3 Rationale for revision of course prerequisites:
This prerequisite change will no longer disallow Geology B.A. students from taking this upper-division geology elective.
 - 3.4 Effect on completion of major/minor sequence:
This change will provide more upper-division geology elective choices to the students in the Geology B.A. major.

- 4. Revise course catalog listing:**
 - 4.1 Current course catalog listing: An introduction to the theory and experimental practices of modern crystallography. Focuses on the study of symmetry and crystal structures and their physical and chemical properties in environmentally important Earth materials. Laboratory fee required.
 - 4.2 Proposed course catalog listing: Theory and experimental practices of modern analytical techniques for the analysis of crystal structures. Focuses on the study of crystallography, crystal chemistry, and their physical and chemical properties. Laboratory fee required.
 - 4.3 Rationale for revision of course catalog listing: The course title change to “Diffraction and Spectroscopy” better aligns with the bulk of the current course content. Since the original course proposal in 2007, WKU has significantly enhanced its materials characterization capabilities, and these new tools allow for a comprehensive and hands-on teaching approach that could not be previously accomplished.

- 5. Proposed term for implementation: Fall 2014**

6. Dates of prior committee approvals:

Department of Geography and Geology
Ogden College Curriculum Committee
Undergraduate Curriculum Committee
University Senate

12/13/2013

Proposal Date: August 29, 2013

**Ogden College of Science and Engineering
Department of Geography and Geology
Proposal to Revise Course Credit Hours
(Action Item)**

Contact Person: Kevin Cary, Kevin.cary@wku.edu, 745-4555

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: GEOG 391
- 1.2 Course title: Spatial Data Analysis and Interpretation
- 1.3 Credit hours: 3

2. Proposed course credit hours: 4

3. Rationale for the revision of course credit hours: Changing to 4 credit hours will reflect the work load currently required of students in the course. Spatial Data Analysis draws from large data sets in the geosciences and the field generally has seen annual advances in the base software products. While the course outline remains the same from year-to-year, the increasing capabilities and complexity of the software and the datasets mean that, in recent years, more lab time has been required of students to achieve mastery of spatial data analysis skills.

4. Proposed term for implementation: Fall 2014

5. Dates of prior committee approvals:

Department of Geography and Geology _____ 8/21/2013 _____

Ogden College Curriculum Committee _____

Undergraduate Curriculum Committee _____

University Senate _____

Attachment: Course Inventory Form

Proposal Date: December 13, 2013

**Ogden College of Science and Engineering
Department of Geography and Geology
Proposal to Revise a Program
(Action Item)**

Contact Person: Leslie North, leslie.north@wku.edu, 5-5982

1. Identification of program:

- 1.1 Current program reference number: 674
- 1.2 Current program title: Geography
- 1.3 Credit hours: 36

2. Identification of the proposed program changes:

- 2.1 Change program title to Geography and Environmental Studies (Extended Major)
- 2.2 Consolidate existing program concentrations (Land, Weather, Climate; Environmental Planning and Resource Management; Planning and GIS; Cultural Geography; Honors Geography; and Karst Geoscience) into two concentrations: 1) Cultural Geography and 2) Environmental Science
- 2.3 Add two options to the Cultural Geography concentration: 1) Cultural Geography, and 2) Tourism and Development
- 2.4 Add two options to the Environmental Science concentration: 1) Environment and Climate Geoscience, 2) Karst Geoscience and Water Resources
- 2.5 Increase total number of program hours to 52
- 2.6 Remove minor program requirement to fit in a 120-hour WKU undergraduate program with the increased total number of program hours
- 2.7 Reflect new or changed courses in the program options.

3. Detailed program description:

Karst Geoscience (GRKG) ■ Foundation Requirements 13 hours GEOG 100 or GEOL 102 or GEOL 111 Physical Geo. (3) GEOG 110 World Regional Geog. (3) GEOG 280 Environmental Science (3) GEOG 475 Mammoth Cave Karst (3) (Summer Field Course) GEOG 499 Professional Development (1) ■ Thematic Requirements 9-10 hours GEOG or GEOL 310 Hydrology (3) OR GEOG 459 Physical Hydrology (3) GEOG 461 Karst Environments (3) GEOG 420 Geomorphology (4)	Deleted and Merged into new Environmental Science Concentration
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<p style="text-align: center;">OR</p> <p>GEOG 475 Mammoth Cave Karst (3) (Summer Field Course)</p> <p>■ Technique Requirements 10 hours GEOG 300 Research (3) GEOG 316 Foundations GIS (4) GEOG 391 Data Analysis (3)</p> <p>■ Approved Electives 3-4 hours GEOG 208 Floods and Droughts (1) GEOG 209 Natural Disasters (1) GEOG 317 GIS (4) GEOG 414 Remote Sensing (4) GEOG 417 GIS Analysis (3) GEOG 419 GIS Programming (3) GEOG 444 Environmental Ethics (3) GEOG 452 Field Methods (3) GEOG 455 Global Env. Change (3) GEOG 471 Resource Management (3) GEOG 474 Env. Planning (3) GEOG 487 Env. Law (3) GEOL 415 Env. Geology (3) GEOL 445 Aqueous Geochemistry (3)</p> <p>Program Total 36 hours Additional requirements: MATH 136, MATH 183, CHEM 120, and BIOL 120 OR PHYS 201</p>	
<p>Environmental Planning and Resource Management (GRES)</p> <p>■ Foundation Requirements 13 hours GEOG 100 or GEOL 102 Physical (3) GEOG 110 World Regional Geog. (3) GEOG 280 Environment (3) GEOG 475 or 495 Practicum or Research (3) GEOG 499 Professional Development (1)</p> <p>■ Thematic Requirements 9 hours GEOG 328 Biogeography (3) GEOG 471 Natural Resources (3) GEOG 474 Env. Planning (3)</p> <p>■ Technique Requirements 10 hours GEOG 300 Research (3) GEOG 316 Foundations GIS (4) GEOG 391 Data Analysis (3)</p> <p>■ General Electives 4 hours</p>	<p>Deleted and Merged into new Environmental Science Concentration</p>

<p>GEOG 208, 209, 310, 317, 350, 380, 414, 417, 419, 444, 452, 455, 459, 461, 487, GEOL 415</p> <p>Program Total 36 hours Additional requirements: MATH 116 and MATH 183, and one Ethics course: PHIL 320 or GEOG 444</p>	
<p>Land, Weather, and Climate (GRLC)</p> <ul style="list-style-type: none"> ■ Foundation Requirements 13 hours GEOG 100 or GEOL 102 or GEOL 111 Physical/Earth (3) GEOG 110 World Regional Geog. (3) GEOG 121 Meteorology (3) GEOG 475 or 495 Practicum or Research (3) GEOG 499 Professional Development (1) ■ Thematic Requirements 7 hours GEOG 322 Global Climate Systems (4) GEOG 424 or 426 Weather (3) ■ Technique Requirements 10 hours GEOG 300 Research (3) GEOG 316 Foundations GIS (4) GEOG 391 Data Analysis (3) ■ General Electives 6 hours GEOG 122, 222, 310, 325, 328, 414, 420, 424 or 426, 482, 455, 459, 461, 471, GEOL 311, 325 <p>Program Total 36 hours Additional Requirements: MATH 116, MATH 183, and PHY 201</p>	<p>Deleted and Merged into new Environmental Science Concentration</p>
<p>Planning and GIS (GRPG)</p> <ul style="list-style-type: none"> ■ Foundation Requirements 13 hours GEOG 100 or GEOL 102 Physical (3) GEOG 110 World Regional Geog. (3) GEOG 240 Planning (3) GEOG 475 or 495 Practicum or Research (3) GEOG 499 Professional Development (1) ■ Thematic Requirements 10 hours GEOG 317 GIS (4) GEOG 474 Env. Planning (3) GEOG 484 Advanced Plan (3) ■ Technique Requirements 10 hours GEOG 300 Research (3) GEOG 316 Foundations GIS (4) GEOG 391 Data Analysis (3) 	<p>Deleted and Merged into new Environmental Science and Cultural Geography Concentrations</p>

<p>■ General Electives 3 hours GEOG 350, 360, 414, 416, 417, 419, 423, 451, 477, 480, 487, 488, 497</p> <p>Program Total 36 hours Additional Requirements: MATH 116, MATH 183, AMS 163, CIS/CS 226 or CS 230</p>	
<p>Cultural Geography (GRCU)</p> <p>■ Foundation Requirements 14 hours GEOG 100 or GEOL 102 Physical (3) GEOG 110 World Regional Geog. (3) GEOG 330 Intro to Cultural (3) GEOG 430 Topics in Cultural (3) GEOG 475 or 495 Practicum or Research (1) GEOG 499 Professional Development (1)</p> <p>■ Regional Requirements 6 hours Choose two courses from: GEOG 200 Latin America (3) GEOG 360 North America (3) GEOG 451 Kentucky (3) GEOG 454 Middle America (3) GEOG 462 South America (3) GEOG 464 Europe (3) GEOG 465 Asia (3) GEOG 466 Africa (3) GEOG 467 Middle East (3)</p> <p>■ Thematic Requirements 6 hours Choose two courses from: GEOG 350 Economic (3) GEOG 378 Food & Culture (3) GEOG 480 Urban (3) GEOG 481 Tourism (3)</p> <p>■ Technique Requirements 10 hours GEOG 300 Research (3) GEOG 316 Foundations GIS (4) GEOG 391 Data Analysis (3)</p>	<p>Cultural Geography</p> <p>Cultural Geography Option (GRCU)</p> <p>■ Required Courses 31 hours GEOG 103 Our Dynamic Earth* (3) GEOG 110 World Regional Geography* (3) GEOG 300 Writing in the Geosciences* (3) GEOG 316 Fundamentals of GIS (4) GEOG 317 GIS (4) GEOG 330 Intro Cultural Geography (3) GEOG 391 Spatial Data Analysis (4) GEOG 430 Topics Cultural Geography (3) GEOG 495 Research Practicum/Intern (3) GEOG 499 Professional Development (1)</p> <p>■ Elective Courses 21 hours Select from any GEOG or METR 2xx – 4xx courses, with your advisor, (examples include 200*, 344, 350, 360, 471, 474, 481, 487, etc.) to meet the 52 unduplicated hours required. At least 26 program hours must be at the upper division level.</p>
<p>Program Total 36 hours Additional requirements: MATH 116 (Algebra) and MATH 183 (Statistics)</p>	<p>Program Total: 52 hours</p> <p>Tourism and Development Option (GRTD)</p> <p>■ Required Courses 31 hours GEOG 103 Our Dynamic Earth* (3) GEOG 110 World Regional Geography* (3) GEOG 300 Writing in the Geosciences* (3) GEOG 316 Fundamentals of GIS (4) GEOG 317 GIS (4) GEOG 330 Intro Cultural Geography (3) GEOG 391 Spatial Data Analysis (4) GEOG 481 Tourism Geography (3) GEOG 495 Research Practicum/Intern (3) GEOG 499 Professional Development (1)</p> <p>■ Elective Courses 21 hours Select from any GEOG or METR 2xx – 4xx</p>

	<p>courses, with your advisor, (examples include 200*, 344, 350, 360, 378*, 471, 474, 481, 487, etc.) to meet the 52 unduplicated hours required At least 26 program hours must be at the upper division level.</p> <p>Program Total: 52 hours</p> <p>Additional requirements for both options not included in the 52 hours: MATH 116* (Algebra) and MATH 183* (Statistics)</p> <p>* Denotes a WKU Colonnade Course</p>
	<p>NEW CONCENTRATION Environmental Science Environment and Climate Geoscience Option (GREC)</p> <p>■ Required Courses 35 hours</p> <p>GEOG 103 Our Dynamic Earth* (3) GEOG 110 World Regional Geography* (3) GEOG 210 Env & Ecological Policy (3) GEOG 280 Env Sci & Sustainability* (4) GEOG 300 Writing in the Geosciences* (3) GEOG 316 Fundamentals of GIS (4) GEOG 317 GIS (4) GEOG 391 Spatial Data Analysis (4) GEOG 455 Global Environ Change (3) GEOG 495 Research Practicum/Intern (3) GEOG 499 Professional Development (1)</p> <p>■ Elective Courses 17 hours Select from any GEOG or METR 2xx – 4xx courses, with your advisor, (examples include 226*, 322, 328, 344, 414, 427, 459, 471, 474, 487, etc.) to meet the 52 unduplicated hours required. At least 26 program hours must be at the upper division level.</p> <p>Program Total: 52 hours</p> <p>Additional requirements not included in the 52 hours: MATH 116* (Algebra) and MATH 183* (Statistics)</p>

	<p>Karst Geoscience and Water Resources Option (GRKW)</p> <p>■ Required Courses 35 hours</p> <p>GEOG 103 Our Dynamic Earth* (3) GEOG 110 World Regional Geography* (3) GEOG 280 Env. Sci. & Sustainability* (4) GEOG 300 Writing in the Geosciences* (3) GEOG 310 Hydrology (3) GEOG 316 Fundamentals of GIS (4) GEOG 317 GIS (4) GEOG 391 Spatial Data Analysis (4) GEOG 461 Karst Environments (3) GEOG 495 Research Practicum/Intern (3) GEOG 499 Professional Development (1)</p> <p>■ Elective Courses 17 hours</p> <p>Select from any GEOG or METR 2xx – 4xx courses, with your advisor, (examples include 226*, 322, 328, 344, 414, 427, 459, 471, 474, 487, etc.) to meet the 52 unduplicated hours required. At least 26 program hours must be at the upper division level.</p> <p>Program Total: 52 hours</p> <p>Additional requirements not included in the 52 hours: MATH 136, MATH 183*, CHEM 120, and PHYS 201 OR BIOL 120.</p> <p>* Denotes a WKU Colonnade Course</p>
<p>Geography Honors (GRHN)</p> <ul style="list-style-type: none"> • Program Requirements 30 hours GEOG 100 (Honors), 110 (Honors), 300, 316, 391, HONS 300, HONS 301, HEEC courses (10 hours), 499 • Program Electives 6 hours HONS 403 Thesis for 6 hours, or 475 or 495 • Program Total 36 hours <p>Additional requirements: MATH 116, MATH 183, and one Ethics course: PHIL 320 or GEOG 444</p>	<p>Deleted</p> <p>Note: Students can earn Honors in the Geography and Environmental Studies Program by earning a 3.2 GPA or higher both in the major and cumulatively at WKU.</p>

4. Rationale for the proposed program changes:

This proposed change reflects an evolution of the existing program to meet the demands of current and future majors and to meet a growing need in the market for environmental studies. The title change (2.1) provides better marketing for majors, improved job prospects for environmental jobs requiring a specific degree, and better captures the expertise of a large subset of our faculty and the courses in the program. Revised program options (2.3) within the two concentrations (2.2.) also reflect this change to focus on areas within human and physical geography, and environmental science, which better fit the expertise of the faculty and the demands of program majors. Over the past decade, the Department has added new faculty that have brought an expanded intellectual and skill base to the existing Geography program, it has acquired new instrumentation and technical facilities such as GIS, and the program overall is now much more student-research and student-retention focused. These proposed program changes are needed to complement those departmental changes. The ultimate goal of the Geography Program is to educate students more effectively and to help them become more marketable for private industry, government, and academic positions.

The proposed changes also reflect greater flexibility, and increase rigor, for students to select elective courses that fit their interest and help better meet their future professional and academic goals. The field of geography and environmental studies is very broad, and a single program centered on fixed requirements and minimized electives cannot encompass all aspects of the science within 120 hours. In addition to these proposed changes, the Department also plans to develop a JUMP B.S./M.S. program aimed at positioning the Geography and Environmental Studies program more competitively among benchmark and regional universities. The proposed program changes in the existing B.S. degree are a critical step toward this effort.

5. Proposed term for implementation and special provisions (if applicable): Fall 2014

6. Dates of prior committee approvals:

Department of Geography and Geology	_____12/13/2013_____
Ogden Curriculum Committee	_____
Undergraduate Curriculum Committee	_____
University Senate	_____

**Ogden College of Science and Engineering
Department of Geography and Geology
Proposal to Revise a Program
(Action Item)**

Contact Person: David Keeling, david.keeling@wku.edu, 5-4555

1. Identification of program:

- 1.1 Current program reference number: 374
- 1.2 Current program title: Minor in Geography
- 1.3 Credit hours: 21

2. Identification of the proposed program changes:

- 2.1 Reduce required program hours to 18
- 2.2 Change structure of the program to require 6 hours of preparatory coursework and 12 hours of advanced coursework.
- 2.3 Delete techniques course requirement and delete GEOG 330 from the list of required courses.
- 2.4 Change course number of GEOG 100 to GEOG 103 and accept either GEOG or GEOL 103 as a required course.

3. Detailed program description:

Existing Program	Revised Program
The Minor in Geography (reference number 374) requires a minimum of 21 semester hours.	The Minor in Geography (reference number 374) requires a minimum of 21 18 semester hours.
Required courses are: GEOG 100, 110, 330	Required courses are: GEOG or GEOL 103, 103 GEOG 110, 330
One Techniques course selected from: GEOG 300, 316, 317, 319, 417, 419, and 452	Technique course.
Nine hours of upper-division electives chosen in consultation with your advisor.	Nine <u>Twelve</u> hours of upper-division GEOG electives chosen in consultation with your advisor.

4. Rationale for the proposed program change:

With a wide variety of course options available to students with diverse interests and major backgrounds, it is easier for advisors to build a program around individual student interests. For example, journalism or broadcasting majors do not necessarily need the type of techniques courses currently required for the Minor. The revised program offers greater flexibility to match students' needs. The number and title of GEOG 100 has been changed to GEOG 103 *Our Dynamic Planet* for the new Colonnade program and is now cross-listed with GEOL 103.

5. **Proposed term for implementation and special provisions (if applicable):**
Fall 2014

6. **Dates of prior committee approvals:**

Department of Geography and Geology

12/13/2013

Ogden College Curriculum Committee

Undergraduate Curriculum Committee

University Senate

**Ogden College of Science and Engineering
Department of Geography and Geology
Proposal to Revise a Program
(Action Item)**

Contact Person: Aaron Celestian (aaron.celestian@wku.edu) 5-5977

1. Identification of program:

- 1.1 Current program reference number: 577
- 1.2 Current program title: Geology: Extended Major
- 1.3 Credit hours: 52

2. Identification of the proposed program changes:

- Change program title to Geology Extended Major
- Reduce total number of hours outside the major to fit in a 120-hour WKU undergraduate program
- Remove field camp as a fixed requirement. It is now elective, or it can be used towards the major in place of GEOL 380 plus a Field Course combination.
- Move introductory biology requirement to program electives.
- Move GEOG 391 (Spatial Data Analysis) to elective course category. GEOG 391 has a prerequisite of MATH 183 (Statistics), which is not required for the geology degree.
- Add a new option for graduation, Geology B.S. Extended Major with Honors. A student can achieve this if a set of minimum requirements are met (12 additional hours in Geology electives and a GPA of ≥ 3.25)
- Add a Physics alternative class. Now students have a choice between two physics classes. This increases scheduling flexibility and can accommodate varying student interests.
- Add new requirement: GEOL 399 (1 hour required and up to 3 hours can be applied to the program) of research experiences. GEOL 399 is an existing course.
- New course associated with this proposal: GEOG 452 – Geoscience Field Experiences (3-6 hours) – which can be used for field camp transfer equivalency or appropriate WKU field courses (such as Study Abroad and Study Away courses). Examples: Bahamas Geology and Mojave Desert Geology, both of which have been offered as GEOL 475 in the past

3. Detailed program description:

Courses	Hours	Courses	Hours
<u>Core-Required Courses</u>	<u>20</u>	Required Courses	43-46
GEOL 111 The Earth	3	GEOL/GEOG 103 Our Dynamic Earth OR GEOL 111 The Earth	3
GEOL 112 Earth History	3	GEOL 112 Earth History	3
GEOL 113 The Earth Lab	1	GEOL 113 The Earth Lab	1
GEOL 114 Earth History Lab	1	GEOL 114 Earth History Lab	1
		GEOL 270 (3) OR GEOL 432 (4)	3-4
GEOL 308 Structural Geology	4	GEOL 308 Structural Geology	4
		GEOG 316 Fundamentals of GIS	4
		GEOG 317 GIS	4
		GEOL 330 Mineralogy	4
		GEOL 350 Petrology	4
GEOL 380 Intro. Field Techniques	3	GEOL 380 Intro. Field Techniques (3)	6

		hrs) plus GEOG 452 Geoscience Field Experiences (3 hrs) OR GEOG 452 (6 hours) OR GEOG 417 GIS Analysis & Modeling (3 hrs) and GEOG 419 GIS Programming (3 hrs)	
		GEOLOG 399 Supervised Research	1-3
GEOLOG 460 Sed. / Strat.	3	GEOLOG 460 Sed. / Strat.	3
GEOLOG 499 Professional Prep.	2	GEOLOG 499 Professional Prep.	2
<u>Additional Required Courses</u>	<u>32</u>	<u>Elective Courses</u>	<u>9-6</u>
GEOLOG 270 Analytical Techniques	3	9 or 6 hours of elective courses selected from any GEOLOG 2xx – 4xx courses, such as: 270, 310, 311, 325, 330, 350, 399, 405, 415, 420, 430, 432, 440, 465, 470, 475, and from GEOG 310, 391, 417 419, 420 and from BIOL 122/123	9-6
GEOLOG /GEOG 310 Global Hydrology	3		
GEOLOG 330 Mineralogy	4		
GEOLOG 350 Petrology	4		
GEOLOG 415 Environmental Geol.	3		
GEOLOG 485 Fossil Fuels	3		
Approve Geology Electives	12		
<u>Program Hours</u>	<u>52</u>	<u>Minimum Program Hours</u>	<u>52</u>
<u>Other Requirements</u>	<u>6</u>	<u>Other Requirements</u>	
Geology Field Camp	6	To graduate with Geology Honors, take an additional 12 hours of GEOLOG courses beyond the minimum required for the major and maintain a GPA of 3.25 or greater	12
(which can count as GEOLOG electives)			
or			
Completion of the GIS Certificate	6		
(requires 6 additional hours)			
<u>Requirements outside Geology</u>	<u>28</u>	<u>Requirements outside Geology</u>	<u>13</u>
MATH 136 Calculus I	4	MATH 136 Calculus I	4
BIOL 122 Biological Concepts	3		
BIOL 123 Biological Concepts Lab	1		
CHEM 120 College Chemistry I	3	CHEM 120 College Chemistry I	3
CHEM 121 College Chemistry I Lab	2	CHEM 121 College Chemistry I Lab	2
PHYS 180 Intro. Modern Physics	3	PHYS 180-181 Intro. Modern Physics + Lab OR PHYS 201	4
PHYS 181 Intro. Modern Physics Lab	1		

GEOG 316 Fundamentals of GIS	4		
GEOG 317 GIS	4		
GEOG 391 Data Analysis	3		

4. Rationale for the proposed program change:

Since the Geology Professional Extended Major was created the Department has added and replaced faculty who have brought an expanded intellectual and skill base, it has acquired new instrumentation and technical opportunities, and the Department is much more student-research and student retention focused (Gatton – Undergraduate – Graduate). To graduate students with a B.S. degree in the 120-hour WKU model, the Department reorganized the major by identifying faculty teaching strengths and priorities, and by creating the best possible Geology program to make our students marketable to private industry, government, and to graduate programs if they aspire to careers in the academy. .

To accomplish this, the Geology faculty have streamlined the core essential classwork required for a modern geologist, while maintaining a flexible and rigorous program for students to enhance their professional interests. The field of geology is very broad and a single program cannot encompass all aspects of the science within 120 hours. Therefore, we propose two enhancements to the current base program:

1) A new B.S. with Honors option will increase academic rigor by allowing students, upon request, to take additional elective courses in their area of interest, while maintaining a minimum GPA of 3.25.

2) In the near future, the Department aims to develop a JUMP B.S./M.S. program that should make the Geology program more competitive among WKU’s benchmark and regional schools. Streamlining the current B.S. is a critical step toward student retention and the JUMP B.S./M.S.

The Geology faculty conducted a survey of geology course requirements at 38 universities across the United States, which included WKU benchmark schools, Kentucky schools with a Geology Program, national schools with an R-1 ranking (Carnegie classification), and national schools that are similarly comprehensive institutions to WKU. All programs were very diverse; however, nearly all have a common core-set of classes. This core-set is reflected in our program and consists of eight courses: the WKU equivalents are GEOL 111, 112, 113, 114, 308, 330, 350, and 460. Above this core, there were no broadly consistent course-work directions among the schools surveyed, and it was clear that each geology program emphasized its own faculty members’ strengths above, and sometimes within, the core.

The Geology program still follows the national model, but faculty are enhancing research opportunities, deepening STEM exploration possibilities, and tailoring the program to retain more students with diverse educational backgrounds. The survey data are available upon request.

5. Proposed term for implementation: Fall 2014

6. Dates of prior committee approvals:

Department of Geography and Geology _____12/13/2013_____

Ogden College Curriculum Committee _____

Undergraduate Curriculum Committee _____

University Senate _____

**Ogden College
Department of Geography and Geology
Proposal to Revise a Program
(Action Item)**

Contact Person: Gregory Goodrich, gregory.goodrich@wku.edu, 745-5986

1. Identification of program:

- 1.1 Current program reference number: 578
- 1.2 Current program title: Major in Meteorology
- 1.3 Credit hours: 49.5

2. Identification of the proposed program changes:

- The meteorology course prefix changed from GEOG to METR
- Program hours decreased from 49.5 to 48 hours
- The Foundational/Technique/Thematic/Professional program structure is replaced with a simpler Required/Elective program structure
- GEOG 100/GEOL 102/GEOL 111 is replaced with METR 122 Aviation Meteorology
- GEOG 110 was removed
- CS 245 was removed
- GEOG 391 name changed to Spatial Data Analysis
- GEOG 300 name changed to Writing in the Geosciences
- The course number for Weather Analysis was changed from 424 to 324
- The number of additional required courses was changed from 26 to 25 to reflect changes from the Math Department in the numbering of calculus courses
- CS 180 Computer Science I was replaced by CS 170 Problem Solving and Programming
- METR 325, 422, 438 are no longer required and are now electives

3. Detailed program description:

<p>The major in meteorology (reference number 578) leads to a Bachelor of Science in Meteorology and requires a minimum of 49.5 semester hours of meteorology, geography, and computer science. A minor program is not required. Other required courses in physics and mathematics total an additional 26 semester hours. Students majoring in meteorology will learn the key concepts and skills necessary to qualify as a meteorologist for the National Weather Service, and to meet the standards of the American Meteorological Society.</p> <p>■ Foundation Requirements: 10 hours GEOG 100 or GEOL 102 or GEOL 111 (3) GEOG 110 World Regional Geog (3)</p>	<p>The major in meteorology (reference number 578) leads to a Bachelor of Science in Meteorology and requires a minimum of 48 semester hours of meteorology, geography, and computer science. A minor program is not required. Other required courses in physics and mathematics total an additional 25 semester hours. Students majoring in meteorology will learn the key concepts and skills necessary to qualify as a meteorologist for the National Weather Service, and to meet the standards of the American Meteorological Society.</p> <p>■ Required courses: 36 hours METR 121 Intro Meteorology (3) METR 122 Aviation Meteorology (3)</p>
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GEOG 121 Intro Meteorology (3)	CS 170 Problem Solving/Programming (3)
GEOG 499 Prof. Development (1)	GEOG 300 Writing in the Geosciences (3)
■ Technique Requirements: 10 hours	GEOG 316 Fundamentals of GIS (4)
GEOG 300 Research Methods (3)	METR 324 Weather Analysis (3)
GEOG 316 Fundamentals of GIS (4)	GEOG 391 Spatial Data Analysis (4)
GEOG 391 Data Analysis (3)	METR 431 Dynamic Met. I (3)
■ Thematic Requirements: 11 hours	METR 432 Synoptic Meteorology (3)
GEOG 422 Physical Climatology (4)	METR 433 Dynamic Met. II (3)
GEOG 424 Weather Analysis (3)	METR 437 Mesoscale Meteorology (3)
CS 180 Computer Science I (3)	GEOG 499 Prof. Development (1)
■ Professional Requirements: 19.5 hours	■ Elective courses: 12 hours
GEOG 325 Met. Instrumentation (3)	Select from any METR 2xx-4xx courses, with your advisor, (examples include 325, 335, 422, 438, 439, 440) to meet the 48 unduplicated hours required.
GEOG 431 Dynamic Met. I (3)	
GEOG 432 Synoptic Meteorology (3)	
GEOG 433 Dynamic Met. II (3)	
GEOG 437 Mesoscale Meteorology (3)	
GEOG 438 Physical Meteorology (3)	
CS 245 Intro Programming Lang. (1.5)	
The following are additional courses required outside of the major: PHYS 255/256, 265/266; MATH 136, 137, 237, and 331.	The following are additional courses required outside of the major: PHYS 255/256, 265/266; MATH 136, 137, 237, and 331.

4. **Rationale for the proposed program change:** These revisions are proposed due to feedback from recent graduates as well as growth in course offerings since the program was developed in 2008. When the Meteorology major was created in 2008, we could only offer a bare minimum of courses to support the major due to a lack of staffing and low student enrollment. The Meteorology program has doubled in size in the last five years and we now have four faculty members supporting the program, which has allowed us to increase our course offerings and provide flexibility to our students. The proposed changes simplify the program structure by having 36 required hours and 12 elective hours, which gives students the opportunity to tailor their elective courses to fit their career goals. The changes in the required Computer Science courses are a product of feedback from recent graduates as well as feedback from employers.

5. **Proposed term for implementation and special provisions (if applicable):** Fall 2014

6. **Dates of prior committee approvals:**

Department of Geography and Geology: _____ 1/16/2014 _____

Ogden Curriculum Committee _____

Undergraduate Curriculum Committee _____

University Senate _____

Proposal Date: 01/13/14

**Ogden College of Science and Engineering
Potter College of Arts & Letters
Department of Mathematics
Potter College Dean's Office
Proposal to Create a New Course
(Action Item)**

Contact Person: Claus Ernst 745-6224
Molly Dunkum
Larry Snyder

claus.ernst@wku.edu

1. Identification of proposed course:

- 1.1 Course prefix (subject area) and number: MATH 240
- 1.2 Course title: Geometry in Art and Architecture
- 1.3 Abbreviated course title: Geometry in Art and Architecture
- 1.4 Credit hours and contact hours: 3
- 1.5 Type of course: L (lecture)
- 1.6 Prerequisites: Any Colonnade MATH course with a B or better or a Math ACT of at least 24 or an MPE of 20
- 1.7 Course catalog listing:

Euclidean geometry with historical applications in art and architecture, such as tiling, circular and spiral designs, designs of the great cathedrals in Europe, Buddhist stupas in Asia, Islamic art, the development of visual perspective, and musical ratios. This course is cross-listed with HUM 240.

2. Rationale:

- 2.1 Reason for developing the proposed course:

MATH 240 will be proposed as a Colonnade Connections course that introduces topics in geometry with applications in architecture, music, and art. This course is multi-disciplinary by design, demonstrating the systemic nature of geometry across disciplines. It will be team-taught by faculty in Ogden and Potter Colleges.

- 2.2 Projected enrollment in the proposed course:
Approximately 25 students per semester.

- 2.3 Relationship of the proposed course to courses now offered by the department:

Other geometry courses in the Department of Mathematics are MATH 127, MATH 206, MATH 323 and 423, and MATH 403. MATH 127 is a course that reinforces topics in geometry with applications in architectural science and construction management for students from the Architectural and Manufacturing Sciences Department. MATH 323 and 423 provide an axiomatic examination of Euclidean and hyperbolic geometry for

mathematics majors, and MATH 206 and MATH 403 is a geometry courses for students preparing to teach in elementary or middle school. None of these mathematics courses provides the emphasis on art, architecture and music contained in the proposed course. In Potter College, the Department of Art does offer several courses on architecture: ART 316 (Medieval Art and Architecture), ART 407 (Islamic Art and Architecture), and ART 445 (American Architectural History). Moreover, the two courses on the History of Art (ART 105 and 106) and the various surveys of art in particular periods or regions (e.g., ART 30: Ancient Greek and Roman Art, ART 315: Northern Baroque Art, or ART 401: Italian Renaissance) all deal with developments in architectural style and artistic technique. The Department of Folk Studies and Anthropology offers FLK 445: American Architectural History, and the sequence of Music Theory courses (MUS 100, 101, 200, and 201) all deal with triads, intervals, and harmonic progression. However, none of the courses listed provides a systematic analysis of the role of geometry in the development of architectural design, visual art, or musical theory.

2.4 Relationship of the proposed course to courses offered in other departments:

No other department in the university offers such a course in geometry.

2.5 Relationship of the proposed course to courses offered in other institutions:

Similar courses have been taught throughout the world. For instance: Math 5, *Geometry of Art and Architecture*, at Dartmouth College; GEK1518, *Mathematics in Art and Architecture*, at the National University of Singapore, and *Art Architecture and Mathematics*, at Leeds University.

3. Discussion of proposed course:

3.1 Course objectives:

Upon completion of MATH 240, students will

- Understand the foundations of Euclidean geometry
- Appreciate the historical significance of the study of geometry
- Be able to recognize and replicate applications of geometry in art and architecture

3.2 Suggested content outline:

- Ratio, proportion, and music
- Golden Ratio and Fibonacci Numbers
- Triangles, Quadrilaterals and polygons and their use in art and architecture
- The circle, ellipses and spirals and their use in art and architecture
- Solids, polyhedra their use in art and architecture
- Origins of visual perspective
- Fractals and Islamic Art

- Geometry and Sacred Space
- Design and Ornamentation in a Gothic Cathedral

3.3 Student expectations and requirements:

Students will be expected to complete assignments, tests and a comprehensive final exam. In addition students will work in teams of two to complete projects on topics suggested by geometric applications encountered in their surroundings. Project topics will be suggested by geometric applications that students encounter in their surroundings. Examples of such topics are:

- Windows in Bowling Green. Are there churches, old homes with fancy windows? Make digital pictures of these and describe their geometry.
- Geometrically interesting buildings on campus. Select a building, get floor plans, make digital pictures and describe the geometry.
- A survey of the art pieces all over campus. What can you say about their geometry?
- The art works of Escher and the geometry behind them.

Each student team must write a term paper and give a presentation.

3.4 Tentative texts and course materials:

Calter, P., *Squaring the Circle: Geometry in Art and Architecture*, Key College Publishing, 2008, ISBN 1-930190-82-4 or similar text
 Camille, Michael. *Gothic Art: Glorious Visions*, Prentice Hall/Abrams, 1996.

4. Resources:

- 4.1 Library resources: Existing library resources are sufficient.
- 4.2 Computer resources: None

5. Budget implications:

- 5.1 Proposed method of staffing: Existing faculty will teach the course.
- 5.2 Special equipment needed: None
- 5.3 Expendable materials needed: None
- 5.4 Laboratory materials needed: None

6. Proposed term for implementation: 201430

7. Dates of prior committee approvals:

Department of Mathematics

____1/23/2014____

OCSE Curriculum Committee

PCAL Curriculum Committee

Undergraduate Curriculum Committee

University Senate

Attachment: Bibliography, Library Resources Form, Course Inventory Form

Proposal Date: 12/12/13

**Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Make Multiple Revisions to a Course
(Action Item)**

Contact Person: Dr. Reagan Brown, Reagan.brown@wku.edu, 5-6939

- 1. Identification of course:**
 - 1.1 Current course prefix (subject area) and number: PSYS 361 (Note: This course was formerly PSY 361. The prefix change is in a prior proposal.)
 - 1.2 Course title: Psychological Tests and Measurement

- 2. Revise course title:**
 - 2.1 Current course title: Psychological Tests and Measurement
 - 2.2 Proposed course title: Psychological Measurement
 - 2.3 Proposed abbreviated title: Psych Measurement
 - 2.4 Rationale for revision of course title: The change in course title from PSYCHOLOGICAL TESTS AND MEASUREMENT to PSYCHOLOGICAL MEASUREMENT is proposed for two reasons. First, the newer title is less wordy than the current title. Second, the topic area of psychological testing is but a subset of the larger topic area of psychological measurement; all psychological measurement involves the use of a psychological test of some sort. Note that the course description and course content is not changing. The proposed new title fits the course description as well as the current title fits the description.

- 3. Revise course number:**
 - 3.1 Current course number: PSYS 361
 - 3.2 Proposed course number: PSYS 413
 - 3.3 Rationale for revision of course number: A new course numbering system was developed for the Department of Psychological Sciences and this change is required in order to make the number for this course consistent with this system.

- 4. Revise course prerequisites/corequisites/special requirements: n/a**
 - 4.1 Current prerequisites/corequisites/special requirements: (indicate which)
 - 4.2 Proposed prerequisites/corequisites/special requirements:
 - 4.3 Rationale for revision of course prerequisites/corequisites/special requirements:
 - 4.4 Effect on completion of major/minor sequence:

- 5. Revise course catalog listing:**
 - 5.1 Current course catalog listing:
 - 5.2 Proposed course catalog listing:
 - 5.3 Rationale for revision of course catalog listing:

- 6. Revise course credit hours:**

- 6.1 Current course credit hours:
- 6.2 Proposed course credit hours:
- 6.3 Rationale for revision of course credit hours:

7. Revise grade type:

- 7.1 Current grade type:
- 7.2 Proposed grade type:
- 7.3 Rationale for revision of grade type:

8. Proposed term for implementation: Fall 2014

9. Dates of prior committee approvals:

Department of Psychological Sciences
OCSE Graduate Curriculum Committee
Graduate Council
University Senate

January 6, 2014

**Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Make Multiple Revisions to a Course
(Action Item)**

Contact Person: Dr. Farley Norman, farley.norman@wku.edu, 5-2094

1. Identification of course:

- 1.1 Current course prefix (subject area) and number: PSYS 411 (Note: This course was formerly PSY 411. The prefix change is in a prior proposal.)
- 1.2 Course title: Psychology of Sensation and Perception

2. Revise course title:

- 2.1 Current course title: Psychology of Sensation and Perception
- 2.2 Proposed course title: Sensory and Perceptual Systems
- 2.3 Proposed abbreviated title: SENS/PERCEP
- 2.4 Rationale for revision of course title: The study of sensation and perception is interdisciplinary and not limited to the discipline of Psychological Sciences. Physicists, biophysicists, psychologists, neurophysiologists, and engineers also study sensation and perception. The new course title is also more descriptive of the course content: the course content is devoted to the neurophysiology and functionality of systems within the brain devoted to sensation and perception.

3. Revise course number:

- 3.1 Current course number: PSYS 411
- 3.2 Proposed course number: PSYS 363
- 3.3 Rationale for revision of prefix and course number: The new prefix and number are required because the course is being moved from the course inventory of the Department of Psychology to the inventory of the Department of Psychological Sciences.

4. Revise course prerequisites/corequisites/special requirements:

- 4.1 Current prerequisites/corequisites/special requirements: PSY 100 and junior standing or permission of the instructor.
- 4.2 Proposed prerequisites/corequisites/special requirements: Sophomore standing or permission of the instructor.
- 4.3 Rationale for revision of course prerequisites/corequisites/special requirements: Successful performance in this class does not require a background in PSYS 100/PSY 100 or Junior standing.
- 4.4 Effect on completion of major/minor sequence: N/A

5. Revise course catalog listing:

- 5.1 Current course catalog listing: PSY 411. PSYCHOLOGY OF SENSATION AND PERCEPTION (3) Prerequisites: PSY 100 and junior standing or permission of the instructor. Basic sensory mechanisms involved in taste, smell, hearing, and sight, with primary emphasis on auditory and visual perception. Topics include speech perception;

visual illusions; color vision; perception of form, shape, movement, time, and space; perceptual motor coordination; and the development of perception.

- 5.2. Proposed course catalog listing: PSYS 363. SENSORY AND PERCEPTUAL SYSTEMS. (3) Prerequisites: Sophomore standing or permission of the instructor. Examination of human/animal sensory and perceptual systems using neurophysiological and psychophysical methods. Examination of both subcortical and cortical brain functioning. Emphasizes the visual, tactile/haptic, and auditory systems.
- 5.3. Rationale for revision of course catalog listing: The old catalog listing is dated and does not reflect the current content of the course, especially with regards to the neural systems involved in perception. The new listing is more descriptive of the content that is actually taught.

6. Revise course credit hours: N/A

- 6.1 Current course credit hours:
6.2 Proposed course credit hours:
6.3 Rationale for revision of course credit hours:

7. Revise grade type: N/A

- 7.1 Current grade type:
7.2 Proposed grade type:
7.3 Rationale for revision of grade type:

8. Proposed term for implementation: Fall Semester 2014

9. Dates of prior committee approvals:

Department of Psychological Sciences
OCSE Curriculum Committee
Undergraduate Curriculum Committee
University Senate

January 6, 2014

This new course is an expression of the increasingly interdisciplinary nature of the psychological sciences and of the need to outfit our graduates with the best that our respective fields have to offer.

- 2.1 Projected enrollment in the proposed course: Students in Cognitive Psychology and Social Psychology regularly ask for coverage of JDM topics, which cannot be accommodated in the existing course curricula. In Cognitive Psychology, they ask about the psychology of choice, and in Social Psychology, students usually ask about topics related to person judgment. Based on this level of student interest, the course is expected to enroll 20 -30 students each time it is offered (once a year).
- 2.2 Relationship of the proposed course to courses now offered by the department:
Cognitive Psychology (PSY 405) covers a small number of relevant topics during a single course module. No other similar courses are offered.
- 2.3 Relationship of the proposed course to courses offered in other departments:
Decision making is essential. Many disciplines therefore include some degree of coverage of decision making procedures in their respective areas as part of their curriculum. Courses in Accounting (e.g., ACCT 310), Agricultural Finance (e.g., AGE 463), and Economics (ECON 307) address decision making based on information relevant to success in these fields. However, this coverage is specific to the course's content area. As one example of this specificity, AMS 355, Systems Design, covers decision making specifically in manufacturing situations. The applications covered in these existing WKU courses are very different from the proposed course.

The proposed course covers general principles that explain decision making across many different areas. It addresses judgment and decision making research in the psychological sciences and related fields, and no emphasis is placed on achieving optimum decision outcomes in any particular content field.

- 2.5 Relationship of the proposed course to courses offered in other institutions:
Only one state university in Kentucky has a similar undergraduate course. This is at Murray State: Problem Solving and Decision Making (PSY 327). Among our benchmark institutions, only Ohio University offers a similar judgment and decision making course (PSY 3330). Northern Illinois University offers a course on Social Judgment (PSYC 473), but this is limited to the study of judgments about people, not judgment and decision making in general.

WKU will be an innovator in offering this course in our Psychological Sciences Department.

3. Discussion of proposed course:

3.1 Schedule type: Lecture

3.2 Learning Outcomes: Students will be able to:

- Explain the differences between normative and descriptive theories of judgment.
- Demonstrate an understanding of heuristics and biases in judgment, and the conditions under which these are most problematic.
- Explain how prospect theory has influenced the study of judgment.
- Understand how, and the conditions under which, emotions influence decisions.
- Identify likely cases of motivated reasoning and know what steps to take to reduce it.
- Understand and know to avoid confirmatory hypothesis testing.
- Explain why people often have difficulty predicting their own behavior.
- Describe how rational and intuitive cognitive systems work both together and at odds to produce different judgment outcomes in different contexts.
- Be able to identify different influences on judgments and decisions in day-to-day life and take steps to minimize decision bias in these situations.
- Demonstrate knowledge of the psychological processes involved in judgment and decision making, and of the optimality of the decisions these processes facilitate.

3.1 Content outline:

The course will consist of bi-weekly lectures covering topics including Normative Decision Theory, Prospect Theory, Decision Biases and Correction, Heuristics, Emotions and Judgment, Intertemporal Choice, Subjective Value, Motivated Reasoning, Confirmatory Hypothesis Testing, Counterfactuals, and Comparison Judgments

3.2 Student expectations and requirements:

Students will be graded on their performance using exams, a final paper, and class discussion contributions.

3.3 Tentative texts and course materials:

Ariely, D. (2008). *Predictably Irrational: The hidden forces that shape our decisions*. Harper Collins. (excerpts)

Gilovich, T., & Griffin, D. W. (2010). Judgment and decision making. In S. T. Fiske, D. T. Gilbert, and G. Lindzey (eds.) *Handbook of Social Psychology, fifth edition, vol. 1* (pp. 542-589).

Hastie, R. & Dawes, R.M. (2009, 2ed). *Rational Choice in an Uncertain World*. Sage Publications. (main textbook)

Kahneman, D. (2011). *Thinking, fast and slow*. Macmillan.(excerpts)

Selected journal articles also will be used:

- Dijksterhuis, A., Bos, M. W., Nordgren, L. F., & van Baaren, R. B. (2006). On making the right choice: The deliberation-without-attention effect. *Science*, 311, 1005-1007.
- Fast, N. J., Sivanathan, N., Mayer, N. D., & Galinsky, A. D. (2012). Power and overconfident decision making. *Organizational Behavior and Human Decision Processes*, 117, 249-260.
- Payne, J. W., Samper, A., Bettman, J. R., & Luce, M. F. (2008). Boundary conditions on unconscious thought in complex decision making. *Psychological Science*, 19, 1118-1123.
- Payne, J. W., Sagara, N., Shu, S. B., Appelt, K. C., & Johnson, E. J. (2013). Life expectation: A constructed belief? *Journal of Risk and Uncertainty*, 46, 27-50.
- Stanovich, K.E. & West, R.F. (2008). On the relative independence of thinking biases and cognitive ability. *Journal of Personality and Social Psychology*. 94, 672-695.

4. Resources

- 4.1. Library resources: Psychology indexing/abstracting/full-text services offered by the WKU library will provide adequate access to journal articles needed for this course.
- 4.2. Computer resources: WKU's web-based instructional tools (i.e., Blackboard) will be used for this course. This technology is adequate for the needs of the professor and the students

5. Budget implications:

- 5.1 Proposed method of staffing: Faculty staffing demands will be reduced by the establishment of course equivalencies with the Department of Psychology, thereby freeing existing faculty to teach this course.
- 5.2 Special equipment needed: None.
- 5.3 Expendable materials needed: None.
- 5.4 Laboratory materials needed: None.

6. Proposed term for implementation: Fall 2014

7. Dates of prior committee approvals:

Department of Psychological Sciences
OCSE Curriculum Committee
Undergraduate Curriculum Committee
University Senate

January 6, 2014

**Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Create a New Course
(Action Item)**

Contact Person: Sharon A. Mutter, email: Sharon.mutter@wku.edu, phone: 5-4389

1. Identification of proposed course:

- 1.1 Course prefix (subject area) and number: PSYS 462
- 1.2 Course title: NEUROSCIENCE OF LEARNING AND MEMORY
- 1.3 Abbreviated course title: NEURO LEARNING MEMORY
- 1.4 Credit hours: 3 Variable credit: No
- 1.5 Grade type: Standard Letter Grade
- 1.6 Prerequisites/corequisites: PSYS 330 Cognitive Psychology or PSYS 315 Psychology of Learning, and PSYS 360 Behavioral Neuroscience
- 1.7 Course description: Introduction to the neural basis of learning and memory. Topics include cellular and molecular mechanisms of learning and memory, neural substrates of different learning and memory systems, impairment of learning and memory tied to brain disorders.

2. Rationale:

- 2.1 Reason for developing the proposed course: In recent years, the boundaries between psychology and neuroscience have blurred and the study of the functional role of brain structures and activity in all forms of cognition and behavior has become increasingly important. Thus a well-rounded education in psychological science now provides an in-depth understanding of both psychology and neuroscience and students who can perform or communicate research in both disciplines will be more competitive for future graduate study and jobs.
- 2.2 Projected enrollment in the proposed course: Because this course will combine lecture and seminar delivery methods, enrollment will be restricted to 20 – 25 students. Based on enrollment averages for similar upper level undergraduate psychology classes, the course is expected to enroll the maximum number of students each time it is offered (once a year).
- 2.3 Relationship of the proposed course to courses now offered by the department: The proposed course will integrate and build on content covered in three foundational survey courses currently offered by the department: PSYS 315 Psychology of Learning covers basic principles of human and animal learning, PSYS 330 Cognitive Psychology provides an overview of cognitive processes, including memory, and PSYS 360 Behavioral Neuroscience covers brain processes and structures underlying a variety of psychological constructs, including learning and memory. Whereas these foundational courses provide breadth of coverage, the proposed course will provide depth, specifically in the coverage of brain processes and structures associated with learning and memory.

- 2.4 Relationship of the proposed course to courses offered in other departments: There are no other departments at WKU that offer courses similar to the proposed course.
- 2.5 Relationship of the proposed course to courses offered in other institutions: Many psychology departments now offer at least one course that either focuses on or has primary content on the neuroscience of learning and memory. Examples include: University of Vermont, PSY 380 Neurobiology of Learning and Memory, Brown University PSY1150 Memory and the Brain, University of Michigan PSY 434 Biopsychology of Learning and Memory. WKU benchmark institutions with similar courses include Ball State University PSY 468 Cognitive Neuroscience, BGSU PSY 3330 Cognitive Neuroscience, Central Michigan University PSY 487 Neuroscience Seminar, MTSU PSY 2190 Human Brain, Behavior, and Consciousness, UNC-Charlotte PSY 4316 Cognitive Neuroscience, and UNC-Greensboro PSY 435 Brain and Psychological Processes.

3. Discussion of proposed course:

- 3.1 Schedule type: Lecture
- 3.2 Learning Outcomes:
- Identify key views and issues concerning the neural organization of learning and memory and discuss how these have evolved over time
 - Become familiar with the general experimental approaches and methods used to study the neuroscience of learning and memory in humans and non-human animals
 - Integrate findings in non-human animals with the neuroscience of human learning and memory
 - Elaborate on the new and upcoming advances concerning memory and the brain
- 1.1 Content outline: The course will consist of bi-weekly lectures and seminar presentations including, at a minimum, the following topics: Historical Perspectives on the Neuroscience of Learning and Memory, Behavioral and Neuronal Plasticity and Stability, Neural Substrates of Learning and Memory including: Emotional Learning and Memory: Amygdala, Motor Learning and Memory: Cerebellum, Contextual and Episodic Learning and Memory: Hippocampal Formation; Habit Learning and Memory: Striatum, Working Memory and Control Processes: Pre-frontal Cortex, Memory Disorders
- 1.2 Student expectations and requirements: Students will be graded on their knowledge of course content via examination, seminar presentation and participation, and written review paper.
- 1.3 Tentative texts and course materials:
- 1.3.1 Textbooks:
- Eichenbaum, H. (2011). *The Cognitive Neuroscience of Memory 2nd Ed.* New York: Oxford University Press.
 - Gluck, M.A., Mercado, E., & Myers, C.E. (2011). *Learning and memory: From brain to behavior.* New York, NY: Worth Publishers.

- Rudy, J. W. (2008). *The neurobiology of learning and memory*. Sunderland, MA: Sunderland.

1.3.2 Representative readings:

1.3.2.1 Historical Perspectives

- Hebb, D.O. (1949). *The organization of behavior*. Oxford, England: Wiley (pp. 60 – 66; 224 – 231).
- Martinez, J.L., & Derrick, B.E. (1996). Long-term potentiation and learning. *Annual Review of Psychology*, 47, 173-203.
- Tolman, E.C. (1948). Cognitive maps in rats and men. *Psychological Reviews*, 55, 189–208.
- Bouton M. & Moody (2004). Memory processes in classical conditioning. *Neuroscience and Biobehavioral Reviews*, 28, 663-674.

1.3.2.2 Emotional Memory

- Phelps E.A., LeDoux J.E. (2005). Contributions of the amygdala to emotion processing: From animal models to human behavior. *Neuron* 48(2), 175-87.
- Monfils, M.H., Cowansage, K.K., Klann, K., LeDoux, J.E. (2010). Extinction reconsolidation boundaries: Key to persistent attenuation of fear memories. *Science*, 324(5929), 951 -955.
- Schiller, D., Monfils, M.H., Raio, C.M., Johnson, D.C., LeDoux, J.E. & Phelps, E.A. (2010). Preventing the return of fear in humans using reconsolidation update mechanisms. *Nature*, 463, 50-53.
- Brohawn K.H., Offringa R., Pfaff D.L., Hughes K.C., Shin L.M. (2010). The neural correlates of emotional memory in posttraumatic stress disorder. *Biological Psychiatry*, 68(11), 1023-30.

1.3.2.3 Habit and Reward Learning

- Horvitz, J.C. (2009). Stimulus-response and response-outcome learning mechanisms in the striatum. *Brain Res.*, 199(1), 129-140.
- Knowlton, B. J., Mangels, J. A. & Squire, L. R. (1996). A neostriatal habit learning system in humans. *Science*, 262, 1747-1749.
- Packard, M. G., & Knowlton, B. (2002). Learning and memory functions of the basal ganglia. *Annual Review of Neuroscience*, 25, 563 – 593.
- Shohamy, D., & Adcock, R.A. (2010). Dopamine and adaptive memory. *Trends in Cognitive Sciences*, 14, 464 - 472

1.3.2.4 Consolidation and Reconsolidation

- Born, J., Rasch, B. & Gais, S. (2006). Sleep to remember. *Neuroscientist*, 12, 410-424

- McGaugh, J.L. (2000). Memory – a century of consolidation. *Science*, 287, 248–251.
- Ji D., Wilson M.A. (2007). Coordinated memory replay in the visual cortex and hippocampus during sleep. *Nature Neuroscience*, 10(1), 100-7.
- Sterpenich, V., et al. (2009). Sleep promotes the neural reorganization of remote emotional memory. *J Neurosci.*, 29(16), 5143-5152.
- Whitlock, Heynen, Shuler, & Bear (2006). Learning induces long-term potentiation in the hippocampus. *Science*, 313, 1093-1097.

1.3.2.5 Motor Learning

- Christian, K.M., & Thompson, R.F. (2005). Long-term storage of an associative memory trace in the cerebellum. *Behavioral Neuroscience*, 119, 526-537.

1.3.2.6 Hippocampus and Amnesia

- Dolan, R.J., & Fletcher, P.F. (1999). Encoding and retrieval in human medial temporal lobes: An empirical investigation using functional magnetic resonance imaging. *Hippocampus*, 9, 25-34.
- Rempel-Clower, N.D., Zola, S.M., Squire, L.R., & Amaral, D.G. (1996). Three cases of enduring memory impairment after bilateral damage limited to the hippocampal formation. *J. Neurosci.*, 16, 5233-5255.
- Schacter, D.L., Alpert, N.M., Savage, C.R., Rauch, S.L., & Albert, M.S. (1996). Conscious recollection and the human hippocampal formation: Evidence from positron emission tomography. *Proc. Nat. Acad. Sci.*, 93, 321-325.

1.3.2.7 Interacting Memory Systems

- Sauvage, M.M., Fortin, N.J., Owens, C.B., Yonelinas, A.P., Eichenbaum, H. (2008). Recognition memory: opposite effects of hippocampal damage on recollection and familiarity. *Nature Neuroscience*, 11(1), 16-18.
- Bechara A, Tranel D, Damasio H, Adolphs R, Rockland C, Damasio A.R. (1995). Double dissociation of conditioning and declarative knowledge relative to the amygdala and hippocampus in humans. *Science*, 269(5227), 1115-1118.
- Li, J., Schiller, D., Schoenbaum, G., Phelps, E.A., Daw, N.D. (2011). Differential roles of human striatum and amygdala in associative learning. *Nature Neuroscience*, 14(10), 1250-1252.

1.3.2.8 Age and Memory Disorders

- Garrard, P., Maloney, L.M., Hodges, J.R., & Patterson, K. (2005). The effects of very early Alzheimer's disease on the characteristics of writing by a renowned author. *Brain*, 128, 250-260.
- Morris, J.C., Storandt, M., Miller, J.P., McKeel, D.W., Price, J.L., Rubin, E.H., & Berg, L. (2001). Mild cognitive

impairment represents early-stage Alzheimer's disease. *Arch. Neurol.*, 58, 397-405.

- Fleischman, D.A., & Gabrieli, J. (1999). Long-term memory in Alzheimer's disease. *Curr. Opin. Neurobio.*, 9, 240-244.
- Moody, T.D., Bookheimer, S. Y., Vanek, Z., & Knowlton, B. J. (2004). An implicit learning task activates medial temporal lobe in patients with Parkinson's disease. *Behavioral Neuroscience*, 118, 438-442.
- Moustafa, A.A., Sherman, S. J., & Frank, M.J. (2008). A dopaminergic basis for working memory, learning, and attentional shifting in Parkinsonism. *Neuropsychologia*, 46, 3144 – 3156.

4. Resources:

- 4.1 Library resources: Books, reference materials, audio-visual materials, and psychology indexing/abstracting/full-text services offered by the WKU library are adequate for this course.
- 4.2 Computer resources: WKU's web-based instructional tools (i.e., Blackboard) will be used for this course. This technology is adequate for the needs of the professor and the students.

5. Budget implications:

- 5.1 Proposed method of staffing: Faculty staffing demands will be reduced by the establishment of course equivalencies with the Department of Psychology, thereby freeing existing faculty to teach this course.
- 5.2 Special equipment needed: None
- 5.3 Expendable materials needed: None
- 5.4 Laboratory materials needed: None

6. Proposed term for implementation: Fall 2014

7. Dates of prior committee approvals:

Department of Psychological Sciences

January 6, 2014

OCSE Curriculum Committee

Undergraduate Curriculum Committee

University Senate

2.5 Relationship of the proposed course to courses offered in other institutions:

Most of WKU's benchmark institutions already offer a psychopharmacology course, because it is central to understanding mind and behavior and how they are influenced by psychoactive drugs (e.g., Bowling Green State University, Central Michigan University, East Tennessee State University, Florida Atlantic University, Illinois State University, Indiana State University, Middle Tennessee State University, Northern Illinois University, Ohio University, & Towson University).

3. Discussion of proposed course:

3.1 Schedule type: Lecture

3.2 Learning Outcomes: Students will be able to:

- Understand normal biochemical communication between neurons within the brain and nervous system
- Explain how neurotransmitters are synthesized within either the cell body of neurons or within presynaptic axon terminals
- Explain how neurotransmitters interact with pre- and post-synaptic receptors
- Identify how the action of neurotransmitters is terminated within the synapse
- Understand and explain how psychoactive drugs influence the synthesis and release of neurotransmitters at neuronal synapses, and how drugs influence termination of neurotransmitter action within synapses
- Identify where important neurotransmitter systems are located within the brain and central nervous system
- Explain why certain psychoactive drugs affect the reward systems within the brain and thus can become addictive

3.1 Content outline:

The course will consist of lectures covering topics including Pharmacokinetics (i.e., how drugs are handled by the body) and Pharmacodynamics (i.e., how drugs act). Mechanisms of drug action will be covered for specific licit and illicit psychoactive drugs, including 1) those which are legal and commonly consumed (e.g., caffeine, nicotine, ethyl alcohol), 2) those which are used for psychiatric and medical therapy (e.g., antidepressants, pain relievers, anti-anxiety and antipsychotic drugs), and 3) those used for illicit recreational use (e.g., cocaine, cannabinoids). Comprehending how illicit psychoactive drugs work (like the THC [delta-9-tetrahydrocannabinol] in marijuana) is important for understanding normal brain function. For example, THC works by mimicking the naturally occurring neurotransmitter anandamide. The anandamide transmitter used in normal brain functioning was only discovered in 1992

after a thorough evaluation of how THC affects chemical communication between neurons.

3.2 Student expectations and requirements:
Students will be graded on their performance using quizzes and exams (exams will contain written short answer and/or essay questions in addition to multiple choice questions).

3.3 Tentative texts and course materials:

Meyer, J. S., & Quenzer, L. F. (2013, 2nd edition). *Psychopharmacology: Drugs, the Brain and Behavior*. Sunderland, MA: Sinauer Associates, Inc.

Julien, R. M., Advokat, C. D., & Comaty, J. E. (2011, 12th edition). *A Primer of Drug Action*. New York: Worth.

4. Resources

4.1. Library resources: Psychology and Science indexing/abstracting/full-text services offered by the WKU library will provide adequate access to journal articles helpful as supplemental sources for this course.

4.2. Computer resources: WKU's web-based instructional tools (i.e., Blackboard) will be used for this course. This technology is adequate for the needs of the professor and the students

5. Budget implications:

5.1 Proposed method of staffing: Faculty staffing demands will be reduced by the establishment of course equivalencies with the Department of Psychology, thereby freeing existing faculty to teach this course.

5.2 Special equipment needed: None.

5.3 Expendable materials needed: None.

5.4 Laboratory materials needed: None.

6. Proposed term for implementation: Spring 2015

7. Dates of prior committee approvals:

Department of Psychological Sciences

OCSE Curriculum Committee

Undergraduate Curriculum Committee

University Senate

January 6, 2014

Ogden College of Science and Engineering
Department of Psychological Sciences
Proposal to Revise A Program
(Action Item)

Contact Person: Sharon Mutter, sharon.mutter@wku.edu, 5-4389

1. Identification of program:

- 1.1 Current program reference number: 591
- 1.2 Current program title: Major in Psychology
- 1.3 Credit hours: 52

2. Identification of the proposed program changes:

- 2.1 Catalog description has changed
- 2.2 Total credit hours have been reduced to 37 and a minor or second major is required
- 2.3 Degree type has been changed from AB to BS
- 2.4 The following thematic concentrations have been created:
 - General Psychological Science
 - Applied Psychological Science
 - Biobehavioral Psychology
 - Clinical Psychological Science
 - Cognitive Psychology
 - Developmental Science
 - Social Psychology
- 2.5 Program components have been renamed or reorganized as follows:
 - Developmental Psychology is now Developmental Processes
 - Learning/Cognition is now Learning and Cognition
 - Social/Industrial-Organizational/Motivation and Personality/Abnormal have been combined into Individual Differences and Social Processes
 - Biological Psychology is now Biological Bases of Behavior and Mental Processes
 - Field Experience/Independent Study is now Capstone
 - Applied Psychology is subsumed into an Applied Psychology Thematic Concentration
 - Psychology Electives is now Thematic Courses
- 2.6 Course prefixes, numbers, and titles have been revised (course revisions have been submitted in separate proposals)
- 2.7 Three new courses have been added and five courses have been dropped.

3. Detailed program description:

The side-by-side table below shows the deletions to the old program (strike through) and the additions (bold) to the proposed program. The six core courses listed in the first paragraph of the current program (i.e., PSY 100, PSY 210, PSY 211, PSY 301, PSY 361, PSY 495) are also used in the Psychology Core of the proposed curriculum and have been inserted in the Foundations of

Psychology, Research Methods and Statistics, or Capstone categories where appropriate. The Psychology Core is required for all thematic concentrations; different options are available in the Thematic Courses for each concentration.

Current Program

The extended major in psychology requires a minimum of 52 semester hours and leads to a Bachelor of Arts degree. No minor or second major is required. The extended major is especially appropriate for the student whose career objectives require a more comprehensive undergraduate psychology background. The extended major is designed for students who maintain a minimum 2.50 GPA both overall and in psychology. Requirements are: PSY 100, PSY 210, PSY 211, PSY 301, PSY 361, PSY 495). MATH 183 (recommended) or other mathematics course (excluding MATH 109) that satisfies the mathematics General Education requirement, and the indicated number of hours from each of the following categories:

Developmental Psychology 3 hours

PSY 321—Child Developmental Psychology
 PSY 422—Adolescent Psychology
 PSY 423—Psychology of Adult Life and Aging

Learning/Cognition 3 hours

Proposed Program

The major in Psychology requires a minimum of 37 credit hours and leads to a Bachelor of Science degree. A minor or second major is required. The program is designed for students who are interested in a science – oriented degree that will prepare them for graduate study in psychology or a related field (e.g., medical school, pharmacy, physical therapy) or for employment in jobs where strong quantitative and research skills are required.

There are seven thematic concentrations in the major, each with a required course of study totaling 37 credit hours. Students must choose one of these concentrations in consultation with their advisors. For each concentration, students will take courses from Foundations of Psychology 15 hours, Research Methods and Statistics 7 hours, Capstone 3 hours, and Thematic Courses 12 hours. Students must maintain a minimum 2.50 GPA both overall and in psychology. Either (1) MATH 116 and MATH 117, or (2) MATH 118 or higher is required; MATH 183 is recommended.

Psychology Core

Foundations of Psychology

PSYS 100 Introductory Psychology

Developmental Processes 3 hours

PSYS 220 Introduction to Lifespan Developmental Psychology

Learning and Cognition 3 hours

PSY 405 – Cognitive Psychology
PSY 407 – Psychology of Language
PSY 410 – Psychology of Learning

Social/Industrial-

Organizational/Motivation 3 hours

PSY 350 – Social Psychology
PSY 370 – Industrial/Organizational
Psychology
PSY 412 – Psychology of Motivation and
Emotion

Personality/Abnormal Psychology 3 hours

PSY 440 – Abnormal Psychology
PSY 450 – Psychology of Personality

Biopsychology 3 hours

PSY 411 – Psych of Sensation and
Perception
PSY 480 – Behavioral Neuroscience

**Field Experience/Independent Study 3
hours**

PSY 390 – Field Experience in Psychology
PSY 490 – Research, Readings, or Special
Projects in Psychology

Applied Psychology 3 hours

PSY 340 – Sport Psychology
PSY 371 – The Psychology of Sales
Behavior
PSY 455 – Introduction to Clinical Practice
of Psychology
PSY 442 – Beginning Skills in
Psychological Interviewing
PSY 443 – Behavior Modification
PSY 470 – Psychology and Law
PSY 473 – Training in Business and
Industry

PSYS 333 Cognitive Psychology
PSYS 331 Psychology of Learning

***Individual Differences and Social Processes 3
hours***

PSYS 350 – Social Psychology
PSYS 440 – Abnormal Psychology

***Biological Bases of Behavior and Mental
Processes 3 hours***

PSYS 363 Sensory and Perceptual Systems
PSYS 360 Behavioral Neuroscience

Research Methods and Statistics 7 hours

PSYS 210 Research Methods in Psychology
PSYS 211 Research Methods in Psychology
Laboratory
PSYS 313 Statistics in Psychology

Capstone 3 hours

PSYS 481 History of Psychology
PSYS 490 Research, Readings, or Special
Projects in Psychology

Thematic Concentrations

General Psychological Science

The General Psychological Science
concentration provides students with general
knowledge of the science of psychology.

Foundations of Psychology

PSYS 100 Introductory Psychology

Developmental Processes 3 hours

Learning and Cognition 3 hours

***Individual Differences and Social Processes 3
hours***

Psychology Electives: 15 hours

Biological Bases of Behavior and Mental Processes 3 hours

Research Methods and Statistics 7 hours

Capstone 3 hours

PSYS 481 History of Psychology is required.

Thematic Courses 12 hours

Courses may be chosen from those not used to satisfy the Foundations of Psychology requirement and from Thematic Courses in any of the other concentrations.

Program Total: 37 credit hours

Applied Psychological Science

The Applied Psychological Science concentration focuses on how psychological science can be used to solve real-world problems in business, sports, or human engineering domains.

Foundations of Psychology

PSYS 100 Introductory Psychology

Developmental Processes 3 hours

Learning and Cognition 3 hours

PSYS 333 Cognitive Psychology is required.

Individual Differences and Social Processes 3 hours

PSYS 350 Social Psychology is required.

Biological Bases of Behavior and Mental Processes 3 hours

Research Methods and Statistics 7 hours

Capstone 3 hours

Thematic Courses 12 hours

Required:

PSYS 413 Psychological Measurement

Electives:

PSYS 290 Supervised Study in Psychology

PSYS 360 Behavioral Neuroscience

PSYS 363 Sensory and Perceptual Systems

PSYS 370 Industrial-Organizational

Psychology

PSYS 433 Judgment & Decision Making

PSYS 473 Training in Business and Industry

PSYS 481 History of Psychology

PSYS 490 Research, Readings, or Special Projects in Psychology

PSYS 499 Senior Seminar in Psychology (category-related topic)

PSY 340 Sport Psychology

PSY 355 Issues in Cross-Cultural Psychology

PSY 412 Motivation and Emotion

PSY 470 Psychology and Law

Program Total: 37 credit hours

Biobehavioral Psychology

The Biobehavioral Psychology concentration provides knowledge of the biological bases of behavior and thought.

Foundations of Psychology

PSYS 100 Introductory Psychology

Developmental Processes 3 hours

Learning and Cognition 3 hours

PSYS 331 Psychology of Learning is required.

Individual Differences and Social Processes 3 hours

Biological Bases of Behavior and Mental Processes 3 hours

PSYS 360 Behavioral Neuroscience is required.

Research Methods and Statistics 7 hours

Capstone 3 hours

Thematic Courses 12 hours

Required:

PSYS 363 Sensory and Perceptual Systems

Electives:

PSYS 290 Supervised Study in Psychology

PSYS 333 Cognitive Psychology

PSYS 431 Psychology of Language

PSYS 462 Neuroscience of Learning and Memory
PSYS 463 Evolutionary Psychology
PSYS 465 Psychopharmacology
PSYS 481 History of Psychology
PSYS 483 Psychology of Sexuality
PSYS 490 Research, Readings, or Special Projects in Psychology
PSYS 499 Senior Seminar in Psychology (category-related topic)

Program Total: 37 credit hours

Clinical Psychological Science

The Clinical Psychological Science concentration focuses on mechanisms and etiologies of psychological health and dysfunction.

Foundations of Psychology

PSYS 100 Introductory Psychology

Developmental Processes 3 hours

Learning and Cognition 3 hours

Individual Differences and Social Processes 3 hours

PSYS 440 Abnormal Psychology is required.

Biological Bases of Behavior and Mental Processes 3 hours

Research Methods and Statistics 7 hours

Capstone 3 hours

Thematic Courses 12 hours

PSYS 290 Supervised Study in Psychology

PSYS 350 Social Psychology

PSYS 360 Behavioral Neuroscience

PSYS 413 Psychological Measurement

PSYS 450 Psychology of Personality

PSYS 451 Psychology of Religion

PSYS 453 Psychology of Women

PSYS 462 Neuroscience of Learning and Memory

PSYS 465 Psychopharmacology

PSYS 483 Psychology of Sexuality

PSYS 481 History of Psychology
**PSYS 490 Research, Readings, or Special
Projects in Psychology**
**PSYS 499 Senior Seminar in Psychology
(category-related topic)**
PSY 443 Behavior Modification
Program Total: 37 credit hours

Cognitive Psychology

The Cognitive Psychology concentration emphasizes the scientific study of mental processes such as attention, perception, memory, problem-solving, thinking, and language use.

Foundations of Psychology

PSYS 100 Introductory Psychology

Developmental Processes 3 hours

Learning and Cognition 3 hours

PSYS 333 Cognitive Psychology is required.

***Individual Differences and Social Processes 3
hours***

***Biological Bases of Behavior and Mental
Processes 3 hours***

Research Methods and Statistics 7 hours

Capstone 3 hours

Thematic Courses 12 hours

PSYS 290 Supervised Study in Psychology

PSYS 331 Psychology of Learning

PSYS 363 Sensory and Perceptual Systems

**PSYS 423 Psychology of Adult Life and
Aging**

PSYS 431 Psychology of Language

PSYS 433 Judgment & Decision Making

**PSYS 462 Neuroscience of Learning and
Memory**

PSYS 481 History of Psychology

**PSYS 490 Research, Readings, or Special
Projects in Psychology**

**PSYS 499 Senior Seminar in Psychology
(category-related topic)**

PSY 412 Psychology of Motivation and

Emotion

Program Total: 37 credit hours

Developmental Science

The Developmental Science concentration addresses the physical, emotional, intellectual, social, perceptual, and personality growth of humans throughout the lifespan.

Foundations of Psychology

PSYS 100 Introductory Psychology

Developmental Processes 3 hours

Learning and Cognition 3 hours

Individual Differences and Social Processes 3 hours

Biological Bases of Behavior and Mental Processes 3 hours

Research Methods and Statistics 7 hours

Capstone 3 hours

Thematic Courses 12 hours

PSYS 290 Supervised Study in Psychology

PSYS 321 Child Developmental Psychology

PSYS 423 Psychology of Adult Life and Aging

PSYS 424 Topics in Developmental Psychology (may be repeated when topic changes)

PSYS 431 Psychology of Language

PSYS 483 Psychology of Sexuality

PSYS 481 History of Psychology

PSYS 490 Research, Readings, or Special Projects in Psychology

PSYS 499 Senior Seminar in Psychology (category-related topic)

PSY 422 Adolescent Psychology

Program Total: 37 credit hours

Social Psychology

The Social Psychology concentration focuses on the study of how social situations affect behavior.

	<p><i>Foundations of Psychology</i> PSYS 100 Introductory Psychology <i>Developmental Processes 3 hours</i> <i>Learning and Cognition 3 hours</i> <i>Individual Differences and Social Processes 3 hours</i></p> <p>PSYS 350 Social Psychology is required. <i>Biological Bases of Behavior and Mental Processes 3 hours</i></p> <p><i>Research Methods and Statistics 7 hours</i></p> <p><i>Capstone 3 hours</i></p> <p><i>Thematic Courses 12 hours</i></p> <p>Required: PSYS 413 Psychological Measurement</p> <p>Electives: PSYS 290 Supervised Study in Psychology PSYS 433 Psychology of Judgment and Decision Making PSYS 440 Abnormal Psychology PSYS 450 Personality Psychology PSYS 451 Psychology of Religion PSYS 453 Psychology of Women PSYS 483 Psychology of Sexuality PSYS 481 History of Psychology PSYS 490 Research, Readings, or Special Projects in Psychology PSYS 499 Senior Seminar in Psychology (category-related topic); PSY 412 Motivation and Emotion</p> <p>Program Total: 37 credit hours</p>
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4. Rationale for the proposed program change:

Overview:

On November 1, 2013 the Department of Psychological Sciences was created in Ogden College. The creation of this department is the culmination of several years of growth in the number of faculty actively engaged in the practice and teaching of basic and applied research in psychological science. This growth will allow WKU to meet the American Psychological Association (APA) Board of Educational Affairs' newly published goals and objectives for the undergraduate psychology curriculum. More specifically, the

proposed changes in the extended major program bring WKU's undergraduate psychology curriculum into alignment with these national standards.

Specific changes as noted in Section 2:

2.1 The catalog description is changed to clearly describe the revised program.

2.2 Although the current program was originally designed to support a variety of career objectives, and especially those involving graduate study, it may instead reduce students' options in this regard. This is because the extra hours in psychology do not encourage students to pursue a minor that might help them obtain a job or gain entry to a STEM-focused graduate program; e.g., neuroscience, medical school. The B.S. should be especially appealing to pre-med students because they will be able to apply the required 28 credit hours of natural and physical science to a minor or second major. This option would be unavailable with the current program because of the extra hours required.

2.3 & 2.4. The APA goals and objectives for the undergraduate curriculum emphasize psychology's role as a STEM discipline. Therefore, it is appropriate to change the degree type from a Bachelor of Arts to a Bachelor of Science. The proposed changes are designed to clarify and enhance the science focus of Psychology in the new curriculum in a number of ways, including:

- a. The addition of thematic concentrations provides options for students who are interested in greater depth of knowledge in the basic science of psychology as well as options for students who are interested in more depth of knowledge in the application of psychological science to real-world problems.
- b. New courses in Psychopharmacology and Neuroscience of Learning and Memory have been added to several concentrations in the new curriculum.
- c. Students with a desire for additional research experience may choose laboratory research as their Capstone experience.

2.5 The renaming of the program core components provides better alignment with the four APA-defined content domains in psychology (developmental, cognition and learning, biological, and socio-cultural).

2.6 The Department of Psychological Sciences has a new course prefix and a new course numbering system that is reflected in the current proposal. Course titles have been updated and made more consistent with course content. These changes have been submitted separately as course revisions and are also summarized in an Addendum to this proposal.

2.7 New courses have been added to provide students with exposure to some of the most important recent advancements in the field (e.g., neuroscience, decision-making, and psychopharmacology) and older courses that are not taught or are not relevant to the

proposed curriculum have been removed. New course proposals have been submitted separately and are also summarized in the Addendum to this proposal.

5. Proposed term for implementation and special provisions (if applicable): Fall 2014.

6. Dates of prior committee approvals:

Department of Psychological Sciences: January 27, 2014

OCSE Curriculum Committee _____

Undergraduate Curriculum Committee _____

University Senate _____

Addendum

Proposals to revise course prefixes, numbers, and titles, establish equivalencies, and create new courses have been submitted separately. The following table summarizes these changes.

Original			New		
Prefix	#	Course Title	Prefix	#	Course Title
Psy	100	Introductory Psychology	Psy/Psys	100	Introductory Psychology
Psy	210	Research Methods in Psych	Psy/Psys	210	Research Methods in Psych
Psy	211	Research Methods in Psych Lab	Psy/Psys	211	Research Methods in Psych Lab
Psy	199	Intro Lifespan Devel Psych	Psy/Psys	220	Intro Lifespan Devel Psych
Psy	290	Supervised Study in Psych	Psy/Psys	290	Supervised Study in Psych
Psy	301	Statistics in Psych	Psy/Psys	313	Statistics in Psych
Psy	321	Child Devel Psych	Psys	321	Child Devel Psych
Psy	345	Psych of Sexuality	Psys	483	Psych of Sexuality
Psy	350	Social Psychology	Psy/Psys	350	Social Psychology
Psy	361	Psych Tests & Measurement	Psys	413	Psych Measurement
Psy	370	I/O Psych	Psys	370	I/O Psych
Psy	405	Cognitive Psychology	Psys	333	Cognitive Psychology
Psy	407	Psych of Language	Psys	431	Psych of Language
Psy	410	Psychology of Learning	Psy/Psys	331	Psych of Learning
Psy	411	Psych of Sens & Percept	Psys	363	Sens & Percep Systems
Psy	422	Adolescent Psych	Psys	422	Adolescent Psych
Psy	423	Psych Adult Life & Aging	Psys	423	Psych Adult Life & Aging
Psy	430	Psych of Women	Psys	453	Psych of Women
Psy	440	Abnormal Psychology	Psy/Psys	440	Abnormal Psychology
Psy	450	Psych of Personality	Psys	450	Psych of Personality
Psy	480	Behavioral Neuroscience	Psys	360	Behavioral Neuroscience
Psy	483	Evolutionary Psych	Psys	463	Evolutionary Psych
Psy	485	Psych of Religion	Psys	451	Psych of Religion
Psy	490	Readings/Research	Psy/Psys	490	Readings, Research
Psy	495	History & Systems in Psych	Psy/Psys	481	History of Psych
Psy	499	Senior Seminar	Psy/Psys	490	Senior Seminar
			Psys	433	Judge & Decision Making
			Psys	462	Neuro Learn Memory
			Psys	465	Psychopharmacology